CFD-RS60CP

SERVICE MANUAL

AEP Model
E Model

Ver. 1.1 2007.08

CD Section	Model Name Using Similar Mechanism	CFD-S35CP
	CD Mechanism Type	KSM-213CDP
	Optical Pick-up Name	KSS-213C
TC Section	Model Name Using Similar Mechanism	NEW
	Tape Transport Mechanism Type	MF-S350V

SPECIFICATIONS

CD player section

System
Compact disc digital audio system
Laser diode properties
Emission duration: Continuous
Laser output: Less than 44.6 μW
(This output is the value measured at a distance of about 200 mm from the objective lens surface on the optical pick-up block with 7 mm aperture.)
Spindle speed
200 r/min (rpm) to 500 r/min (rpm) (CLV)
Number of channels
2
Frequency response
20 - 20 000 Hz +1.8/–0.2 dB
Wow and flutter
Below measurable limit

Radio section

Frequency range

MX model
FM: 87.5 - 108 MHz
AM: 530 - 1 710 kHz
Except MX model
FM: 87.5 - 108 MHz
AM: 531 - 1 611 kHz (9 kHz step)
530 - 1 610 kHz (10 kHz step)

Antennas
FM: Telescopic antenna
AM: Built-in ferrite bar antenna

Cassette-corder section

Recording system
4-track 2 channel stereo
Fast winding time
Approx. 120 s (sec.) with Sony cassette C-60
Frequency response
TYPE I (normal): 80 - 10 000 Hz

USB section

Supported bit rate
MP3 (MPEG 1 Audio Layer-3):
32 - 320 kbps, VBR
Sampling frequencies
MP3 (MPEG 1 Audio Layer-3):
32/44.1/48 kHz
(USB) port
USB-A (Full Speed)

– Continued on next page –

CD RADIO CASSETTE-CORDER

9-887-803-02
2007H04-1
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Sony Corporation
Personal Audio Division
Published by Sony Techno Create Corporation

SONY®

General

Speaker
Full range: 10 cm dia., 3.2 Ω, cone type (2)
Input
(USB) port: Type A, maximum current 500 mA
Outputs
Headphones jack (stereo minijack)
For 16 - 68 Ω impedance headphones
Power output
2.3 W + 2.3 W (at 3.2 Ω, 10% harmonic distortion)
Power requirements
For CD radio cassette-corder:
SP model: 230 - 240 V AC, 50Hz
MX model: 120 V AC, 60Hz
CET, E41, IT, RU model: 230 V AC, 50Hz
9 V DC, 6 R20 (size D) batteries
For remote control:
3 V DC, 2 R03 (size AAA) batteries
Power consumption
AC 18 W
Battery life
For CD radio cassette-corder:

FM recording
Sony R20P: approx. 13.5 h
Sony alkaline LR20: approx. 20 h
Tape playback
Sony R20P: approx. 7 h
Sony alkaline LR20: approx. 12 h
CD playback
Sony R20P: approx. 2.5 h
Sony alkaline LR20: approx. 7 h

Dimensions
Approx. 420 × 158.5 × 260 mm (w/h/d) (incl. projecting parts)
Mass
Approx. 3.8 kg (incl. batteries)
Supplied accessories
AC power cord (1)
Remote control (1)

Design and specifications are subject to change without notice.

- Abbreviation
  CET : East European model
  E41 : AC 230V area in E model
  IT : Italian model
  MX : Mexican model
  RU : Russian model
  SP : Singapore model

CAUTION
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 °C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

UNLEADED SOLDER

Boards requiring use of unleaded solder are printed with the lead-free mark (LF) indicating the solder contains no lead.
(Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size)

: LEAD FREE MARK

Unleaded solder has the following characteristics.

- Unleaded solder melts at a temperature about 40 ˚C higher than ordinary solder.
  Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.
  Soldering irons using a temperature regulator should be set to about 350 ˚C.
  Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!
- Strong viscosity
  Unleaded solder is more viscous (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.
- Usable with ordinary solder
  It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

TABLE OF CONTENTS

1. SERVICING NOTES 4

2. GENERAL 5

3. DISASSEMBLY
3-1. Cabinet Top Assy 7
3-2. Cabinet Front Assy, Cabinet Bottom Assy 7
3-3. Wires 8
3-4. MD Block 8
3-5. Holder (Cassette) 9
3-6. Power Key Board 9
3-7. Main Board Section, Headphone Board 10
3-8. Tuner Board, Power Board 10
3-9. CD Lid 11
3-10. LCD Block Assy, USB Connect Board 11
3-11. CD Block Assy 12
3-12. R/P Head (HRP301), Erase Head (HE301), TC Board ... 12

4. MECHANICAL ADJUSTMENTS 13

5. ELECTRICAL ADJUSTMENTS
Tape Section 13
Tuner Section 14
CD Section 16

6. DIAGRAMS
6-1. Block Diagram – CD Section – 17
6-2. Block Diagram – Tuner Section – 18
6-3. Block Diagram – USB Section – 19
6-4. Block Diagram – Main Section – 20
6-5. Printed Wiring Board – BD91 Section – 22
6-6. Schematic Diagram – BD91 Section – 23
6-7. Printed Wiring Board – Tuner Section – 24
6-8. Schematic Diagram – Tuner Section – 25
6-9. Printed Wiring Board – Main Section – 26
6-10. Schematic Diagram – Main Section (1/2) – 27
6-11. Schematic Diagram – Main Section (2/2) – 28
6-12. Printed Wiring Boards – Power Section – 29
6-13. Printed Wiring Boards
– Headphone/USB Connect/VOL Section – 30
6-14. Schematic Diagram
– Headphone/USB Connect/VOL Section – 31
6-15. Printed Wiring Board – USB Section – 32
6-16. Schematic Diagram – USB Section – 33
6-17. Printed Wiring Board – TC Section – 34
6-18. Schematic Diagram – TC Section – 35
6-19. Printed Wiring Boards – Key Section – 36
6-20. Printed Wiring Board – LCD Section – 37
6-21. Schematic Diagram – Control Section – 38

7. EXPLODED VIEWS
7-1. Cabinet Section 50
7-2. Cabinet (Front) Section 51
7-3. Cabinet (Top) (1) Section 52
7-4. Cabinet (Top) (2) Section 53
7-5. Cabinet (Bottom) Section 54
7-6. Tape Mechanism Section (MF-S350V) 55

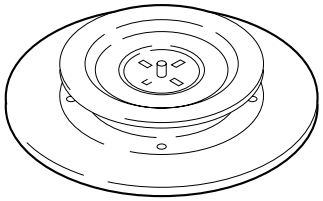
8. ELECTRICAL PARTS LIST 56

SECTION 1
SERVICING NOTES

CHUCK PLATE JIG ON REPAIRING

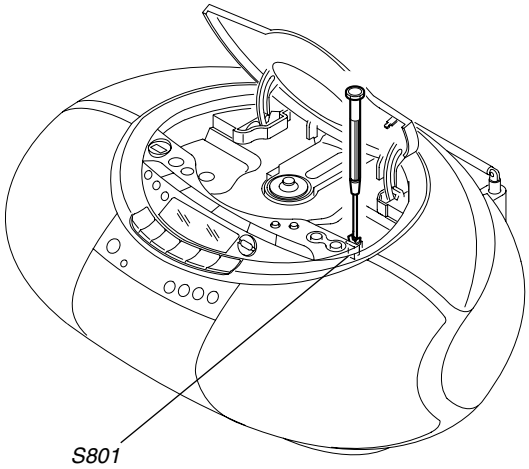
On repairing CD section, playing a disc without the lid (CD), use Chuck Plate Jig.

- Code number of Chuck Plate Jig: X-4918-255-1



LASER DIODE AND FOCUS SEARCH OPERATION CHECK

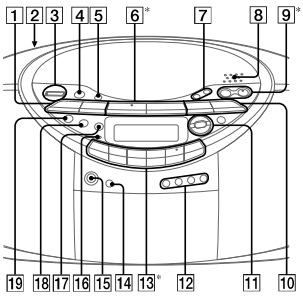
1. Turn ON the OPERATE button and press CD button to CD position.
2. Open the CD lid.
3. Turn on S801 with screwdriver, etc. as following figure.
4. Press the ►II (CD) button.
5. Confirm the laser diode emission while observing the objecting lens. When there is no emission, Auto Power Control circuit or Optical Pick-up is broken.
   Objective lens moves up and down four times for focus search.

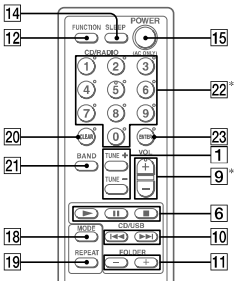


SECTION 2
GENERAL

This section is extracted from instruction manual.

Basic Operations





* VOLUME + (VOL + on the remote) 9, ▶II 6, ◀ 13 and 5 22 on the remote have a tactile dot.

Before using the unit

About the operating voltage

The unit's operating voltage is shown on the bottom of the unit. For changing the AM tuning interval, radio frequency range, and AC operation, check the operating voltage of your unit.

To turn on/off the power

Press POWER 15.

To adjust the volume

Press VOLUME +, – (VOL +, – on the remote) 9.

To listen through headphones

Connect the headphones to the ∩ (headphones) jack 2.

To select the sound characteristic

Press SOUND 7 on the unit repeatedly to select the audio emphasis you want.

Choose	To get
ROCK	powerful, clean sounds, emphasizing low and high range audio
POP	light, bright sounds emphasizing high and middle range audio
JAZZ	percussive sounds, emphasizing bass audio
VOCAL	the presence of vocals, stressing middle range audio
OFF	the whole dynamic range for music such as classical music

To reinforce the bass sound

Press MEGA BASS 7 on the unit.
"MEGA BASS" appears in the display.
To return to normal sound, press the button again.

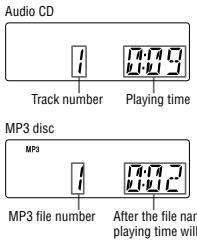
Playing a CD/MP3 disc

1 Press CD 12 on the unit.
(On the remote, press POWER 15 and then press FUNCTION 12 repeatedly until "CD" appears in the display.)

2 Press ⏏ PUSH OPEN/CLOSE 8 on the unit, and place a disc with the label side up on the CD compartment.
To close the CD compartment, press ⏏ PUSH OPEN/CLOSE 8 on the unit.

3 Press ▶II on the unit (► on the remote) 6.
The unit plays all the tracks/MP3 files once.
When you place MP3 discs, "MP3" appears in the display after the unit reads the file information.

Basic Operations



To	Press
Pause playback	▶II on the unit (▮▮ on the remote) 6. To resume play, press it again.
Stop playback	■ 6.
Go to the next track/MP3 file	▶▶I 10.
Go back to the previous track/MP3 file	I◀◀ 10.
Select a folder on an MP3 disc	🗀 + on the unit to go forward and 🗀 – to go backward 11. (On the remote, use FOLDER + or – 11.)
Locate a point while listening to the sound	▶▶ (forward) or ◀◀ (backward) 1 on the unit while playing and hold it until you find the point (On the remote, use ▶▶I or I◀◀ 10.)
Locate a point while observing the display	▶▶ (forward) or ◀◀ (backward) 1 on the unit in pause and hold it until you find the point (On the remote, use ▶▶I or I◀◀ 10.)
Locate a specific track/MP3 file directly	the number button 22 of the track/MP3 file on the remote.
Remove the CD	⏏ PUSH OPEN/CLOSE 8.

Tips
- Playback starts from the track/MP3 file you last stopped playing (Resume play). During stop, the track/MP3 file number to be played is displayed.
- To cancel the resume play (to start play from the beginning of the first track/MP3 file), press ■ 6 or open the CD compartment in stop mode.

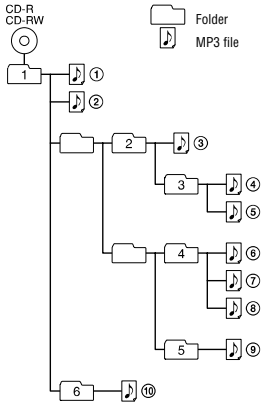
To locate a track by number on the remote

(Example)
For track/MP3 file number 1: Press 1 22, and then ENTER 23.
For track/MP3 file number 12: Press 1, 2 22, and then ENTER 23.
For track/MP3 file number 123: Press 1, 2, 3 22, and then ENTER 23.

Note
You cannot locate a specific track/MP3 file if "SHUF" or "PGM" is lit in the display. Turn off the indication by pressing MODE 18.

Example of folder structure and playing order

The playing order of the folders and files is as follows:



Notes on MP3 discs
- When the disc is inserted, the unit reads all the files on that disc. During this time, "READING" is displayed. If there are many folders or non-MP3 files on the disc, it may take a long time for play to begin or for the next MP3 file to start play.
  Do not save unnecessary folders or files other than MP3 ones in the disc to be used for MP3 listening.
- Locating a specific MP3 file using the number buttons 22 on the remote is only available for the MP3 files in the selected folder.
- A folder that does not include an MP3 file is skipped.
- Maximum number of files: 255
- Maximum number of folders: 150
  Maximum number of folders and files in total: 300
  Maximum directory steps: 8
- Folder names and file names can be displayed with up to 32 characters.
- The characters A - Z, a - z, 0 - 9, and _ can be displayed on this unit. Other characters are displayed as "_".
- This unit conforms to Version 1.1 of the ID3 tag format. If the file has the ID3 tag information, "song title", "artist name", and "album name" can be displayed.
- When naming, be sure to add the file extension "mp3" to the file name.
- If you put the extension "mp3" to a file other than an MP3 file, the unit cannot recognize the file properly and will generate random noise that could damage your speakers.
- The file name does not correspond to the ID3 tag.

Listening to the radio

1 Press RADIO 12 on the unit (BAND 21 on the remote) repeatedly.
Each time you press the button, the indication changes as follows:
"FM" → "AM".

2 Hold down TUNE + or – 1 until the frequency digits begin to change in the display.
The unit automatically scans the radio frequencies and stops when it finds a clear station.
If you cannot tune in a station, press TUNE + or – 1 repeatedly to change the frequency step by step.
When an FM stereo broadcast is received, "ST" appears.

Tip
If the FM broadcast is noisy, press MODE 18 until "Mono" appears in the display and the radio will play in monaural.

Changing the AM tuning interval (Except for the 120 V model)

If you need to change the AM tuning interval, do the following:

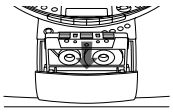
1 Press RADIO 12 on the unit until "AM" is displayed.
2 Press DISP/ENT/MEMORY 17 on the unit for 2 seconds.
3 Press RADIO 12 on the unit for 2 seconds.
"9K STEP" or "10K STEP" flashes.
4 Press PRESET + or – 10 on the unit to select "9K STEP" for 9 kHz interval or "10K STEP" for 10 kHz interval.
5 Press DISP/ENT/MEMORY 17 on the unit.

After changing the tuning interval, you need to reset your preset AM radio stations.

Playing a tape

Use buttons on the unit for the operation.

1 Press TAPE 12 on the unit.
2 Press ■⏏ 13 on the unit, and insert the tape into the tape compartment with the side you want to play facing you. Use TYPE I (normal) tape only. Close the compartment.
Make sure there is no slack in the tape to avoid damaging the tape or the unit.



3 Press ◀ 13 on the unit.
The unit starts playing.

To	Press
Pause playback	▮▮ 13 on the unit. To resume play, press it again.
Stop playback	■⏏ 13 on the unit.
Fast-forward or rewind	◀◀ or ▶▶ (fast forward or rewind) 13 on the unit.
Eject the cassette	■⏏ 13 on the unit.

Recording on a tape

Use buttons on the unit for the operation.

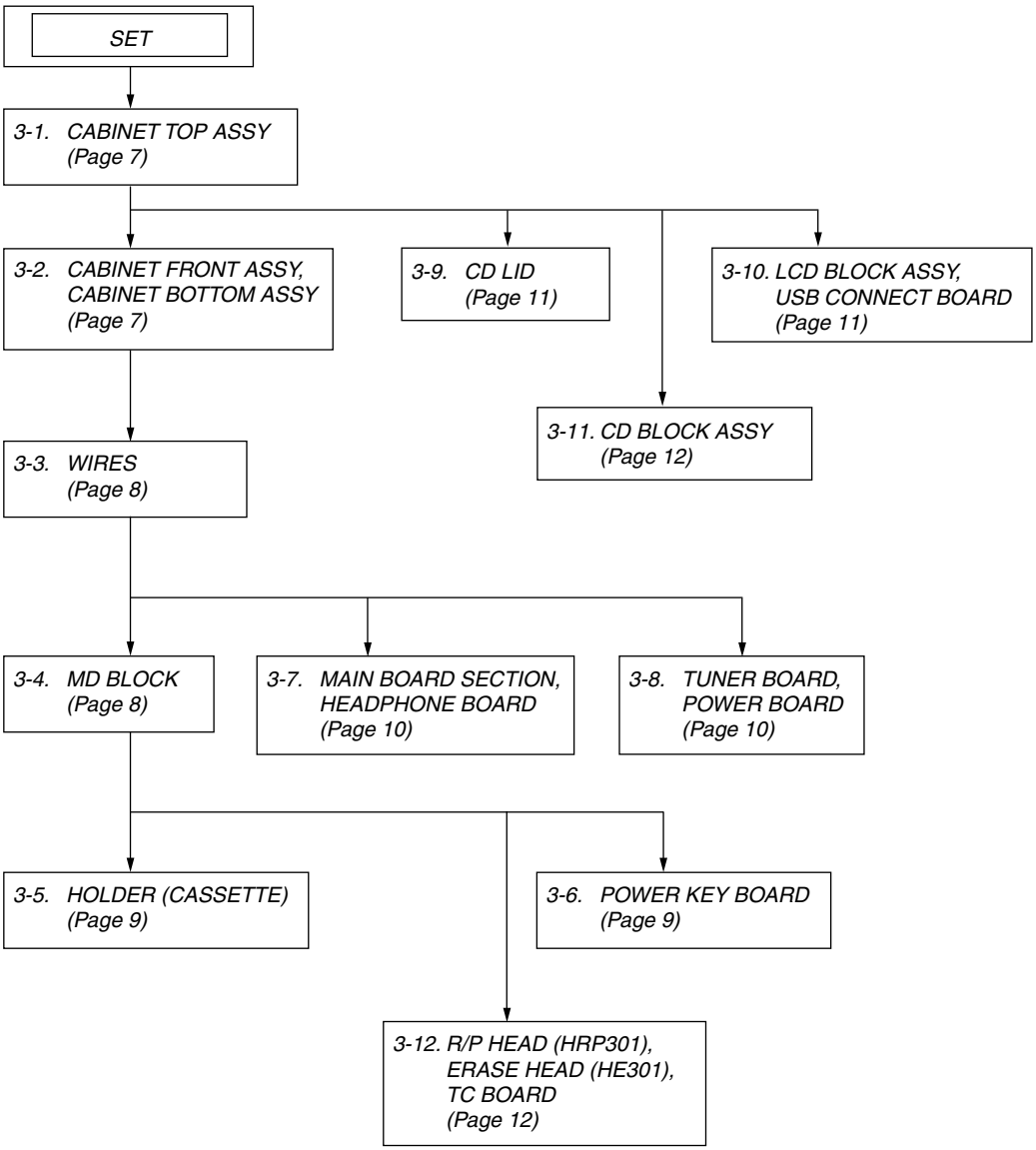
1 Press ■⏏ 13 on the unit to open the tape compartment and insert a blank tape with the side you want to record on facing you. Use TYPE I (normal) tape only. Close the compartment.
2 Select the program source you want to record.
To record from the CD player, place a CD and press CD 12 on the unit.
To record from the radio, tune in the station you want.
3 Press ● 13 on the unit to start recording (◀ is depressed automatically).

To	Press
Pause recording	▮▮ 13 on the unit. Press the button again to resume recording.
Stop recording	■⏏ 13 on the unit.

Tips
- Adjusting the volume or the audio emphasis will not affect the recording level.
- If the AM program makes a whistling sound after you've pressed ● 13 in step 3, press MODE 18 on the unit to select the position of ISS (Interference Suppress Switch) that most decreases the noise.
- For the best results, use the AC power as a power source for recording.
- To erase a recording, proceed as follows:
  1 Insert the tape whose recording you want to erase.
  2 Press TAPE 12 on the unit.
  3 Press ● 13 on the unit.

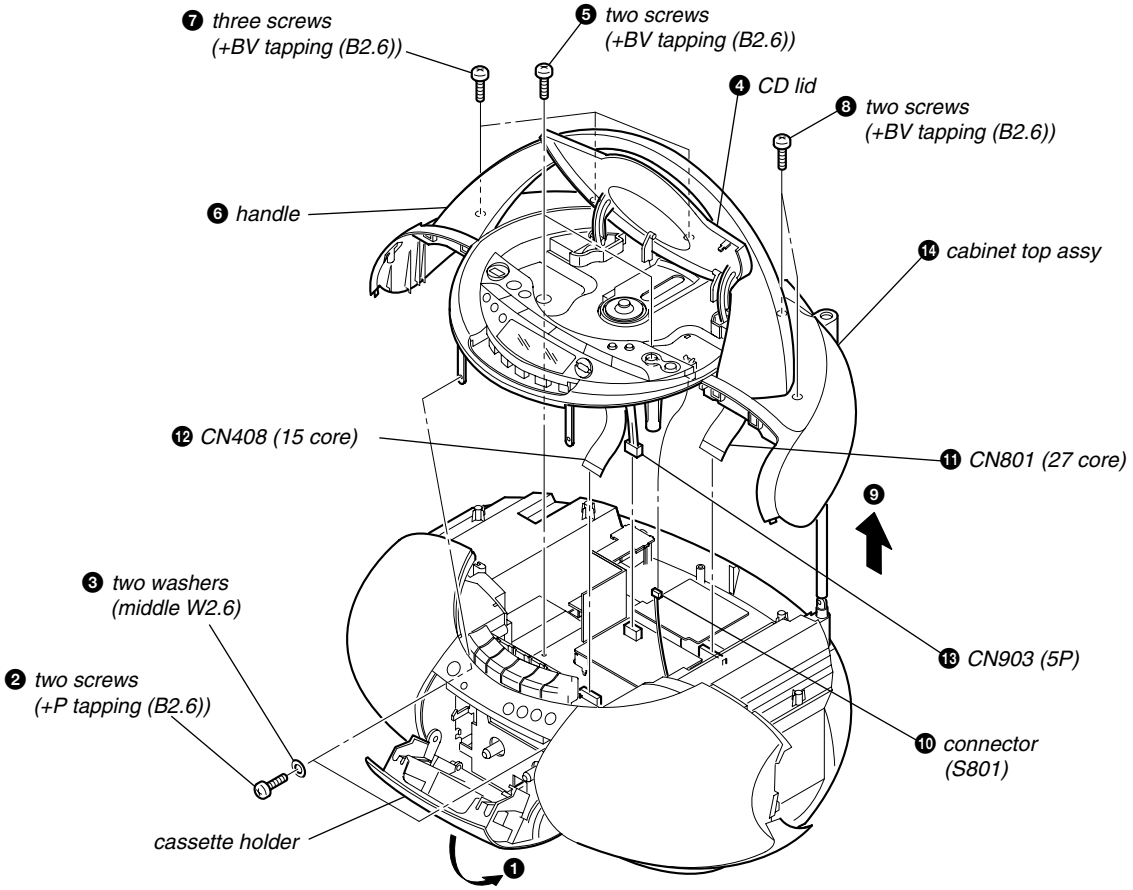
SECTION 3
DISASSEMBLY

Note: Disassemble the unit in the order as shown below.

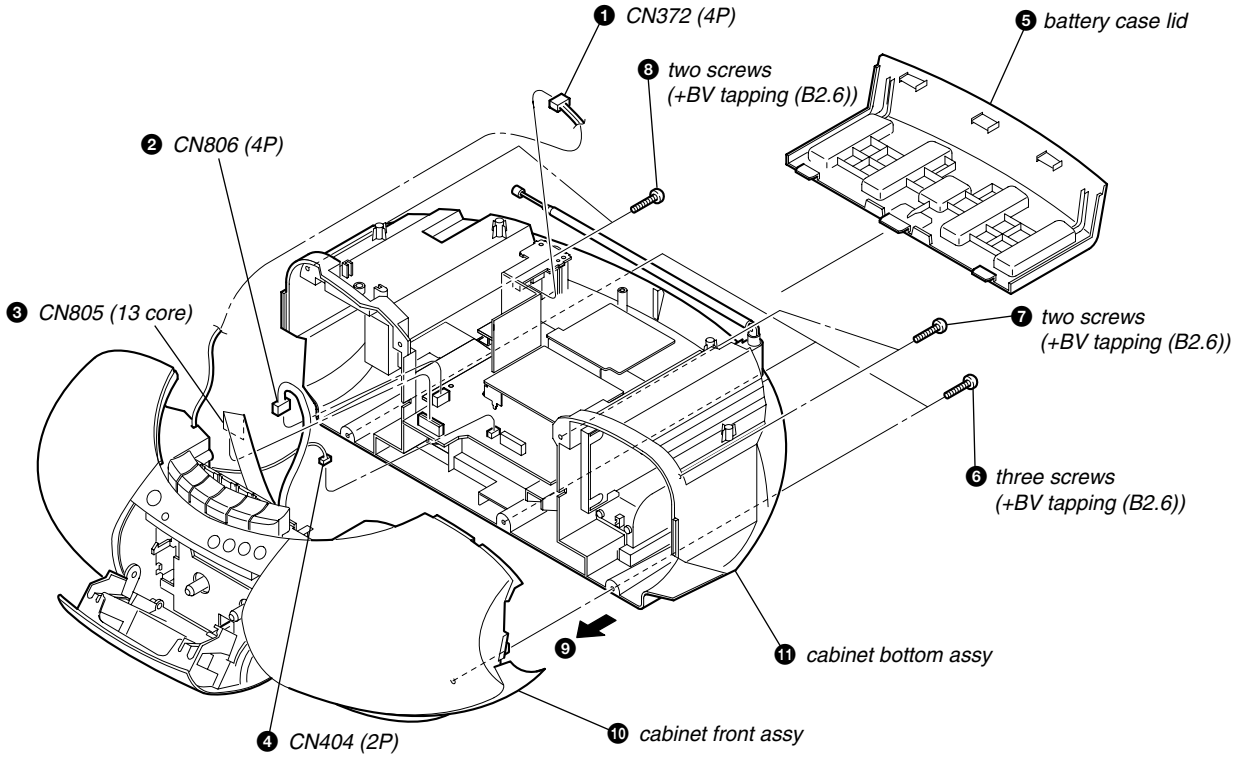

SET
3-1. CABINET TOP ASSY (Page 7)
3-2. CABINET FRONT ASSY, CABINET BOTTOM ASSY (Page 7)
3-9. CD LID (Page 11)
3-10. LCD BLOCK ASSY, USB CONNECT BOARD (Page 11)
3-11. CD BLOCK ASSY (Page 12)
3-3. WIRES (Page 8)
3-4. MD BLOCK (Page 8)
3-7. MAIN BOARD SECTION, HEADPHONE BOARD (Page 10)
3-8. TUNER BOARD, POWER BOARD (Page 10)
3-5. HOLDER (CASSETTE) (Page 9)
3-6. POWER KEY BOARD (Page 9)
3-12. R/P HEAD (HRP301), ERASE HEAD (HE301), TC BOARD (Page 12)

Note: Follow the disassembly procedure in the numerical order given.

3-1. CABINET TOP ASSY

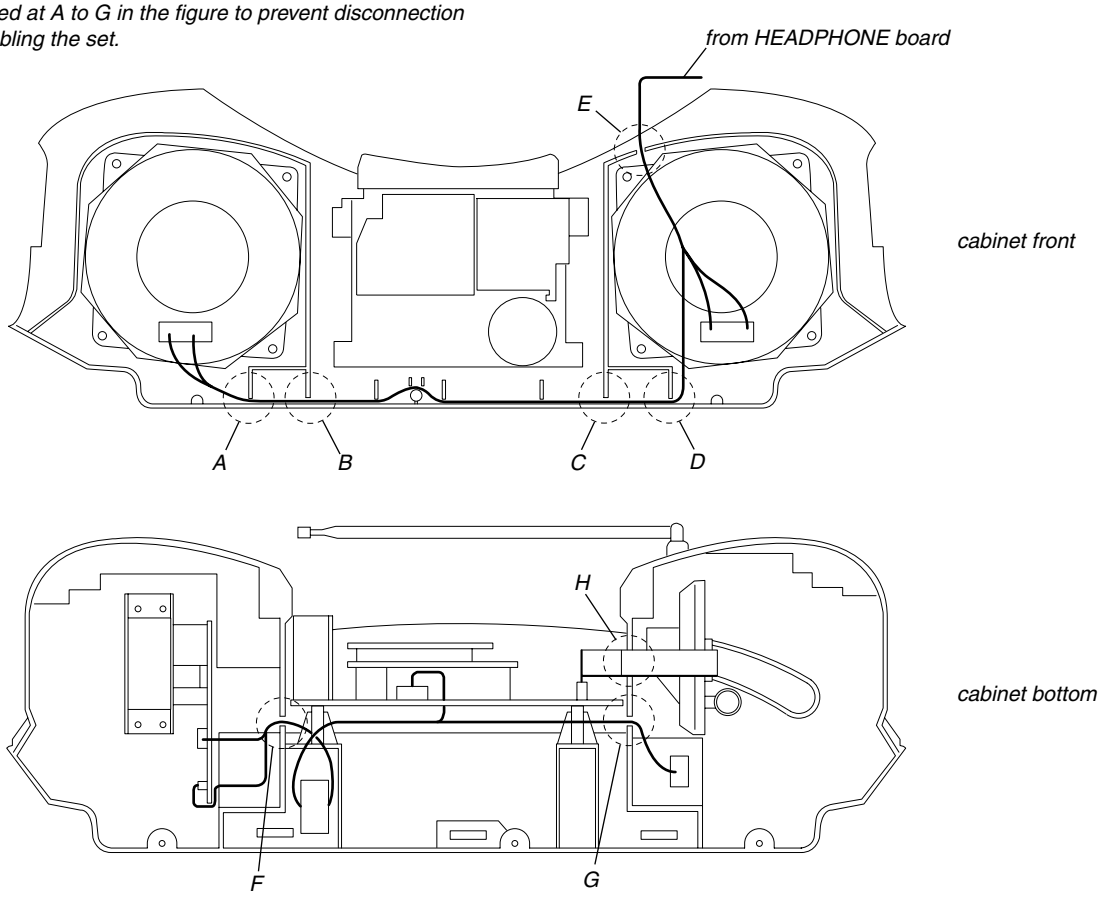


3-2. CABINET FRONT ASSY, CABINET BOTTOM ASSY

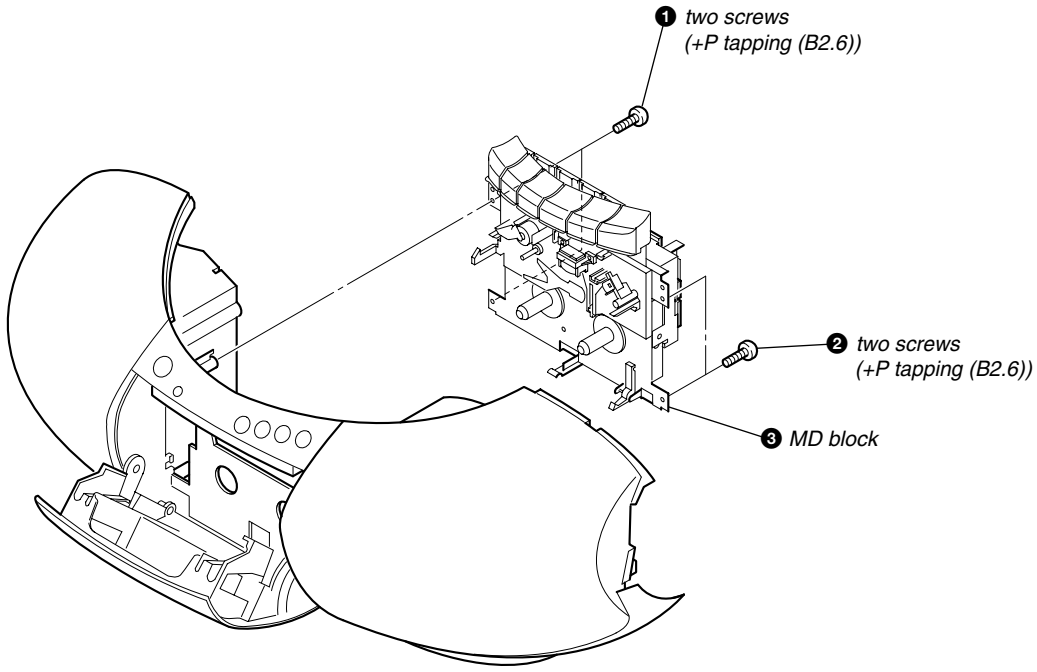


3-3. WIRES

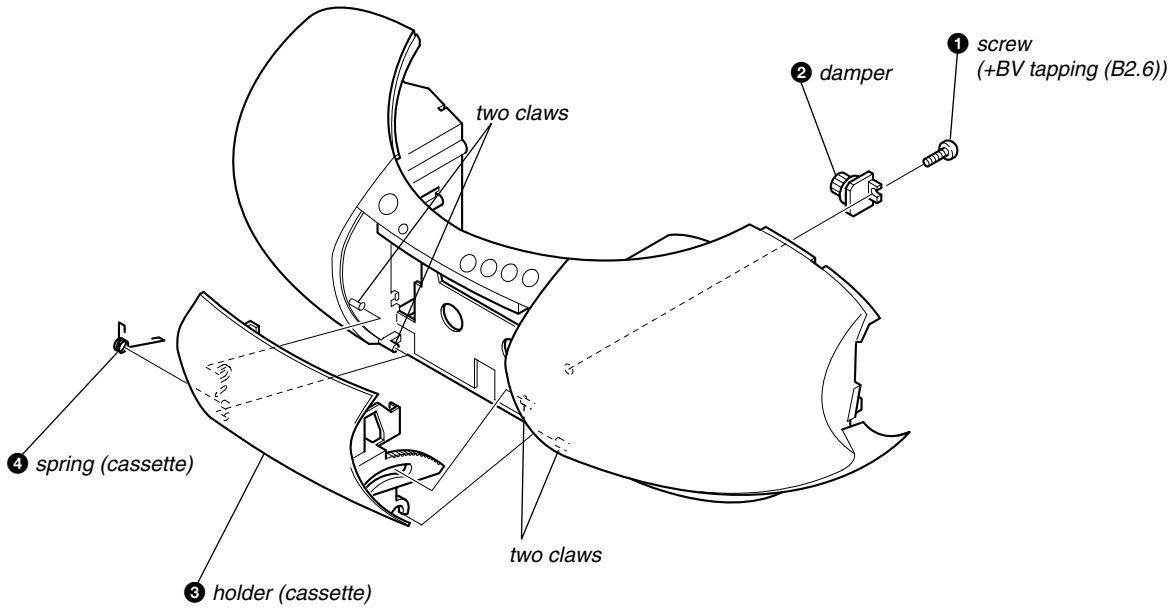
Put flat cable and wires between the cabinets and push them in the grooves located at A to G in the figure to prevent disconnection before assembling the set.



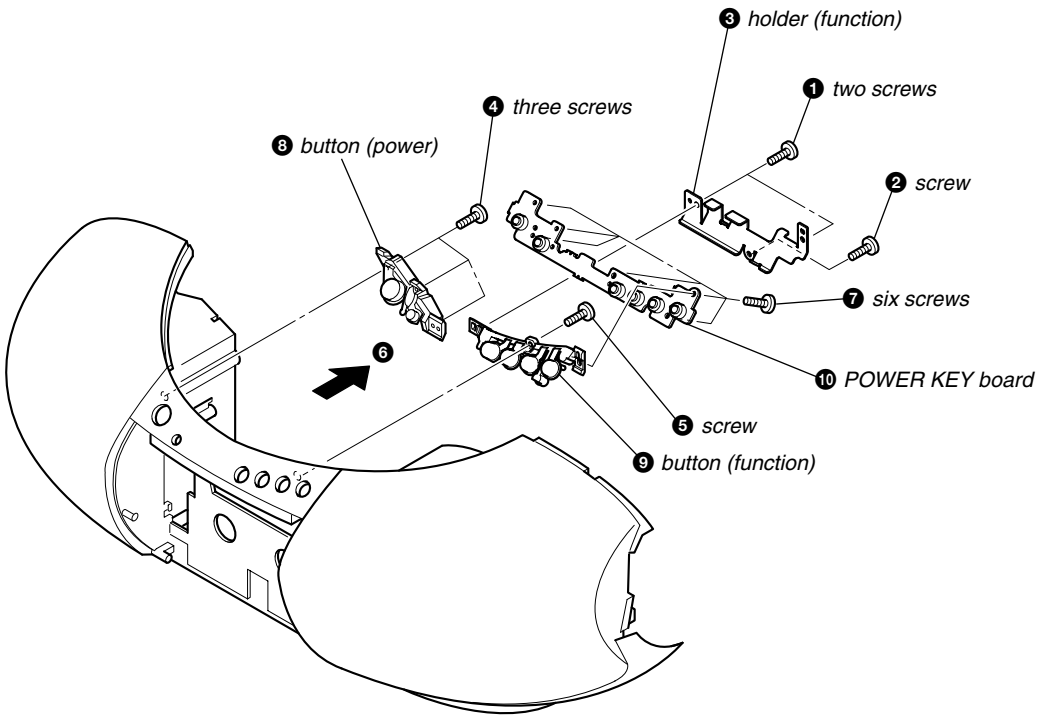
3-4. MD BLOCK



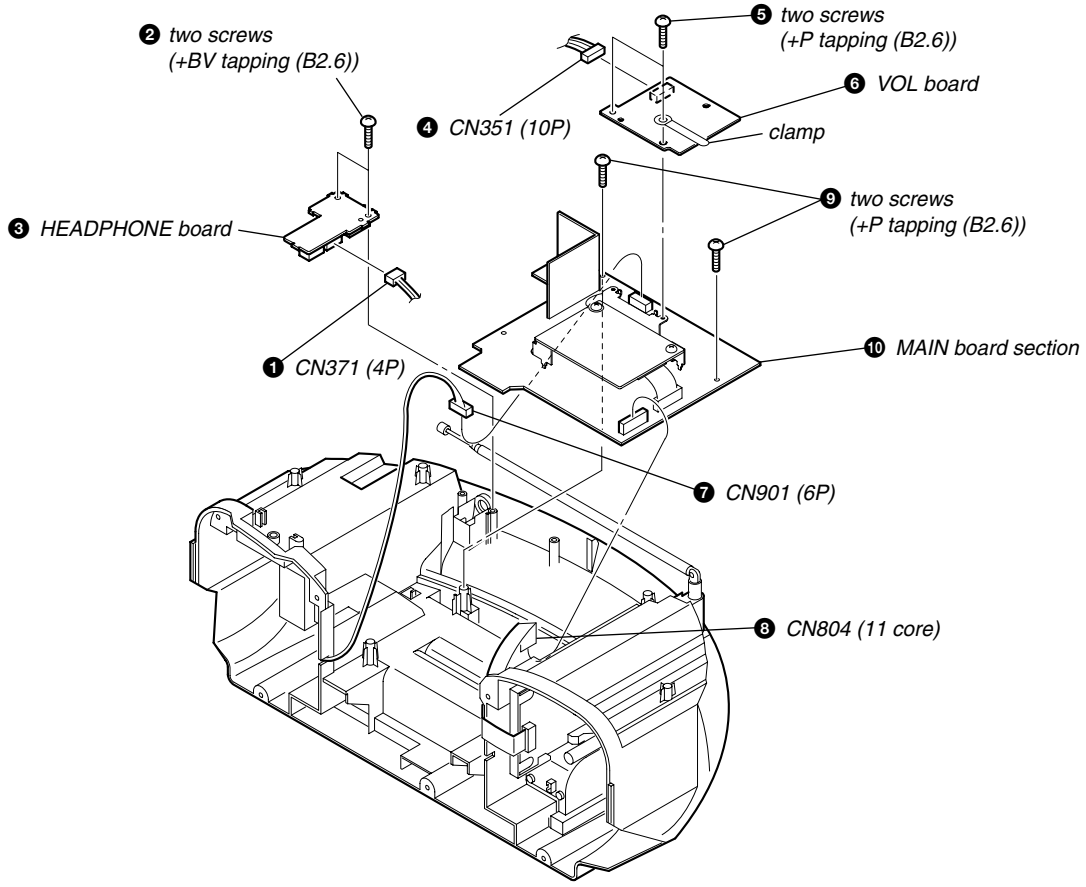
3-5. HOLDER (CASSETTE)



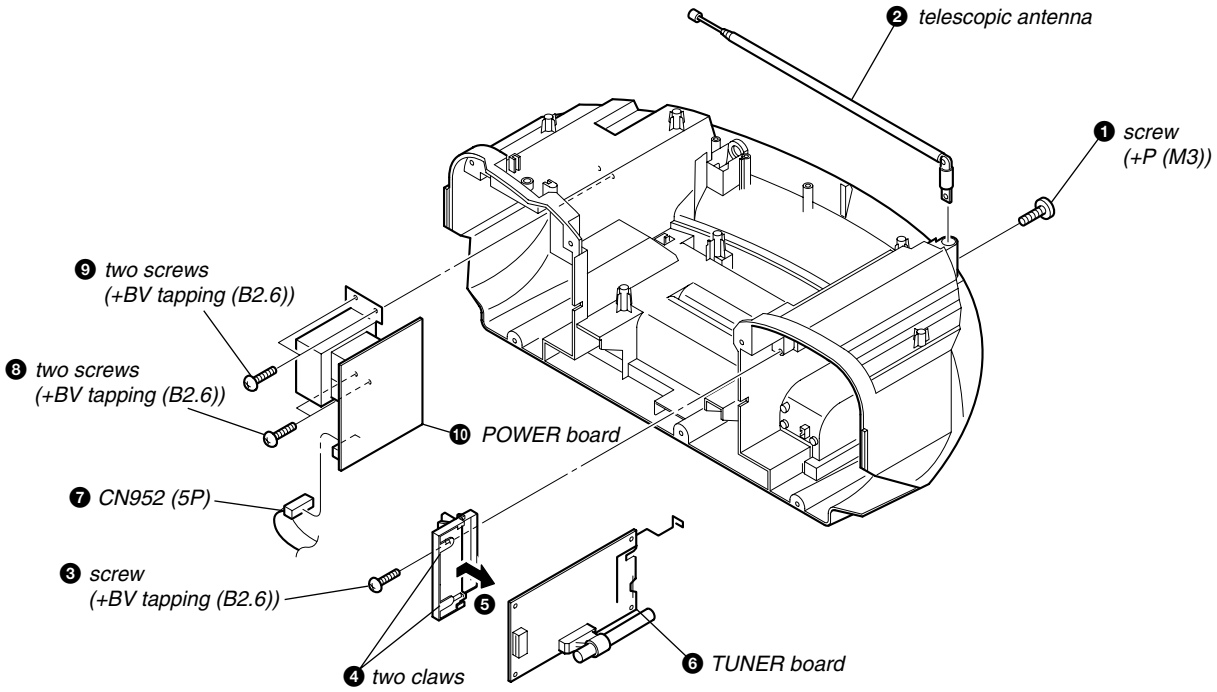
3-6. POWER KEY BOARD



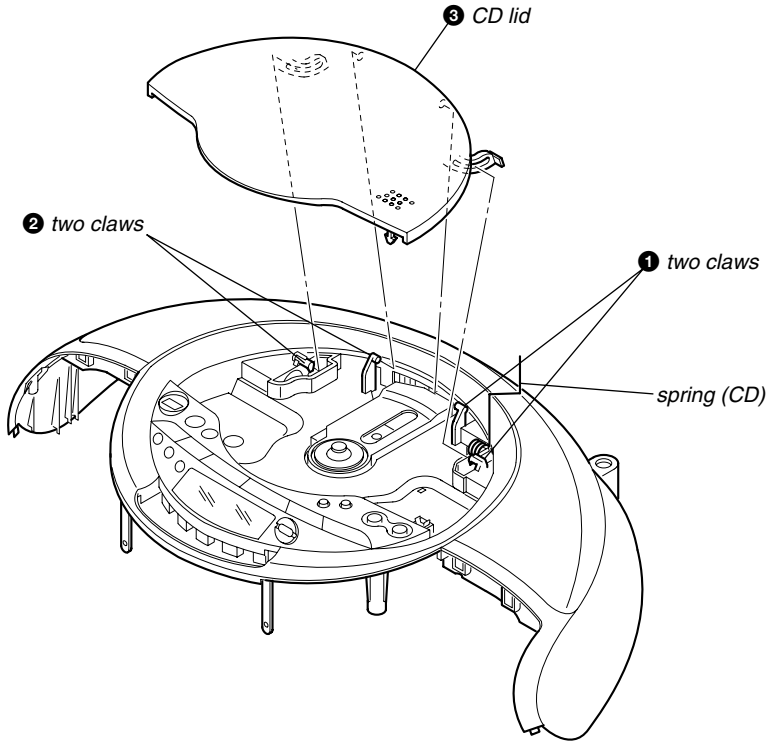
3-7. MAIN BOARD SECTION, HEADPHONE BOARD



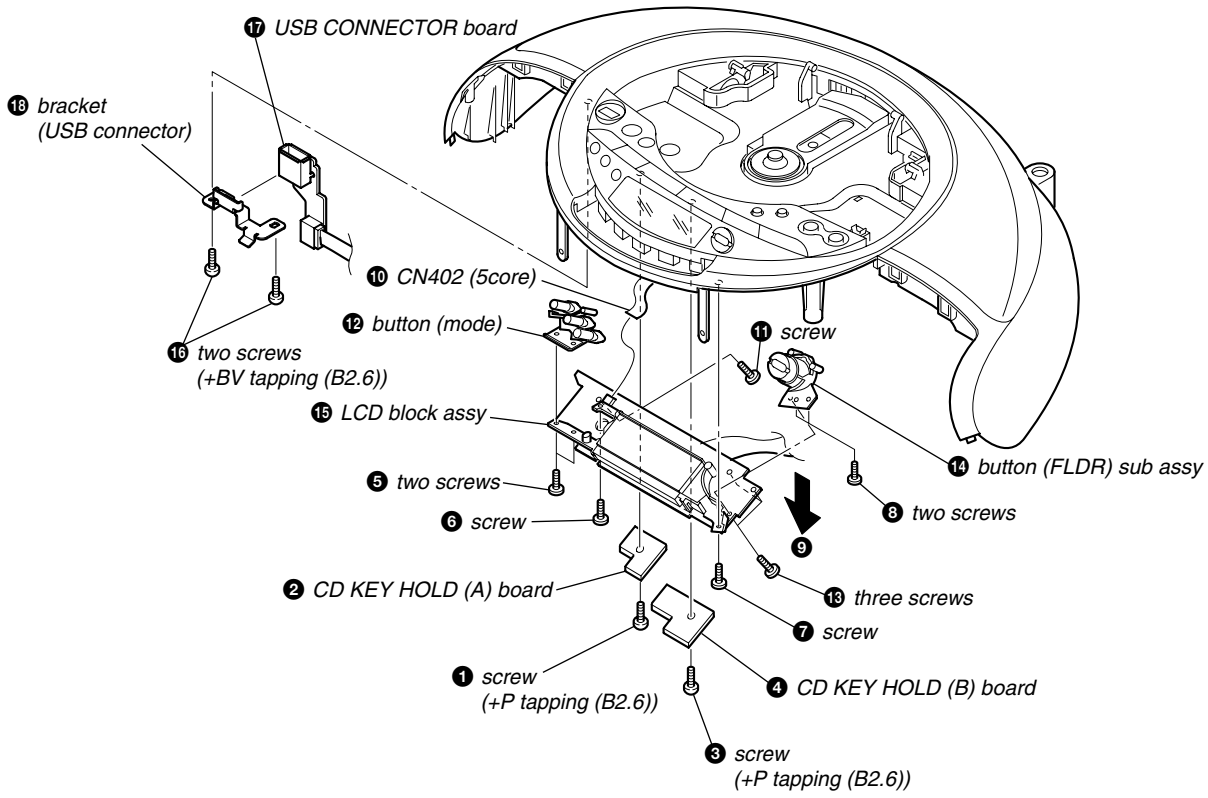
3-8. TUNER BOARD, POWER BOARD



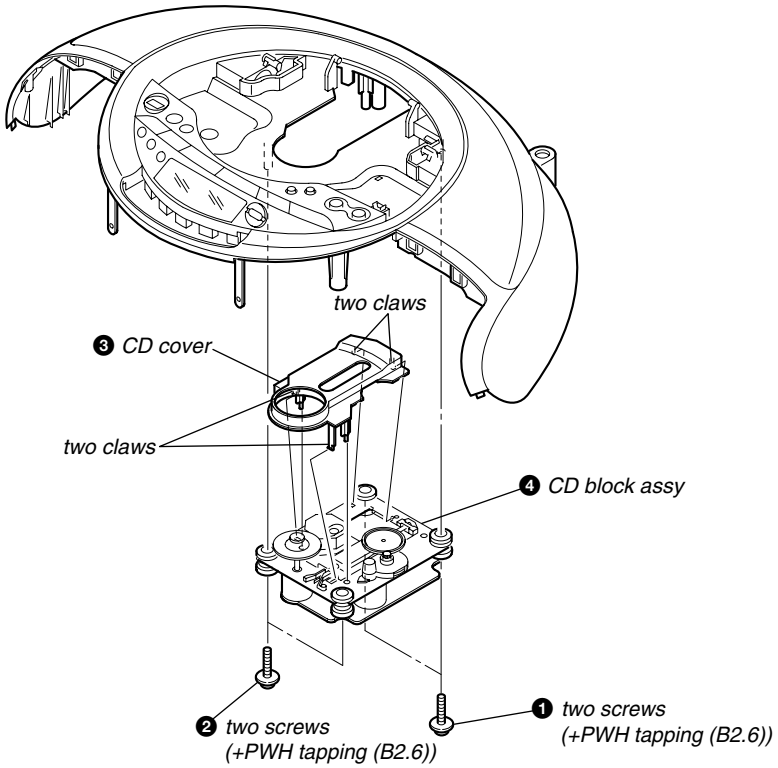
3-9. CD LID



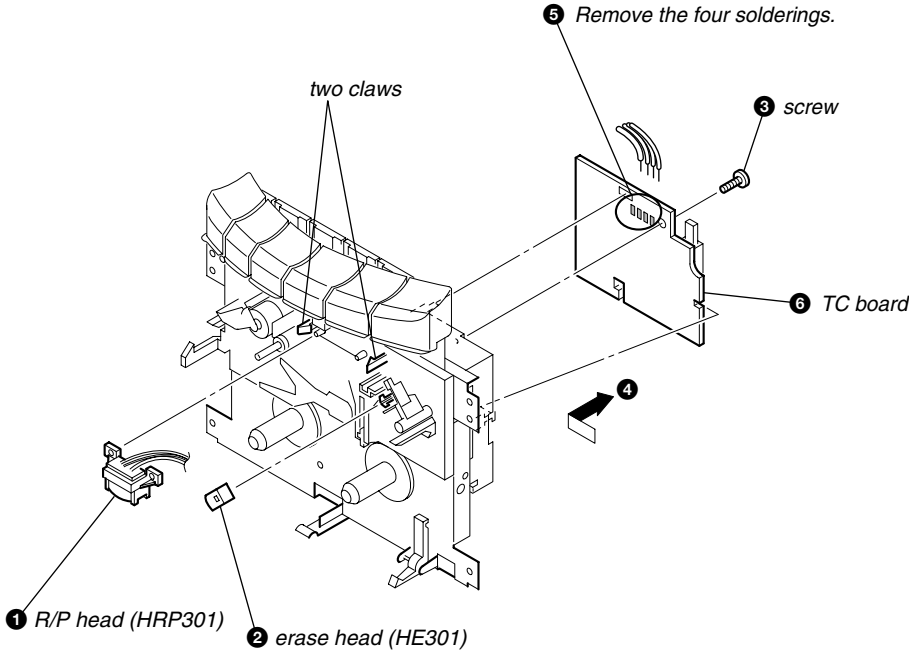
3-10. LCD BLOCK ASSY, USB CONNECT BOARD



3-11. CD BLOCK ASSY



3-12. R/P HEAD (HRP301), ERASE HEAD (HE301), TC BOARD



SECTION 4
MECHANICAL ADJUSTMENTS

• Precaution

1. Clean the following parts with a denatured alcohol-moistened swab :
   record/playback heads — pinch roller
   erase head — rubber belts
   capstan — idlers
2. Demagnetize the record/playback head with a head demagnetizer. (Do not bring the head magnetizer close to the erase head.)
3. Do not use a magnetized screwdriver for the adjustments.
4. The adjustments should be performed with the rated power supply voltage (9V) unless otherwise noted.

• Torque Measurement

Mode	Torque meter	Meter reading
FWD	CQ-102C	2.95 – 6.86 mN • m (30 – 70 g • cm) (0.42 – 0.97 oz • inch)
FWD back tension	CQ-102C	0.15 – 0.53 mN • m (1.5 – 5.5 g • cm) (0.021 – 0.076 oz • inch)
FF	CQ-201B	more than 5.88 mN • m (more than 60 g • cm) (more than 0.83 oz • inch)
REW	CQ-201B	more than 5.88 mN • m (more than 60 g • cm) (more than 0.83 oz • inch)

• Tape Tension Measurement

Mode	Torque meter	Meter reading
FWD	CQ-403A	more than 100 g (more than 3.53 oz)

SECTION 5
ELECTRICAL ADJUSTMENTS

TAPE SECTION | 0 dB = 0.775 V

• Standard Output Level

Output terminal	HP OUT
load impedance	32 Ω
output signal level	0.25 V (–10 dB)

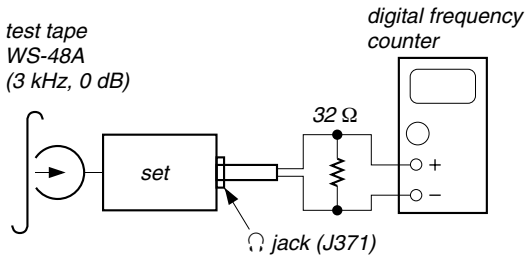
• Test Tape

Type	Signal	Used for
WS-48A	3 kHz, 0 dB	tape speed adjustment

Tape Speed Adjustment

Procedure:

Mode: playback



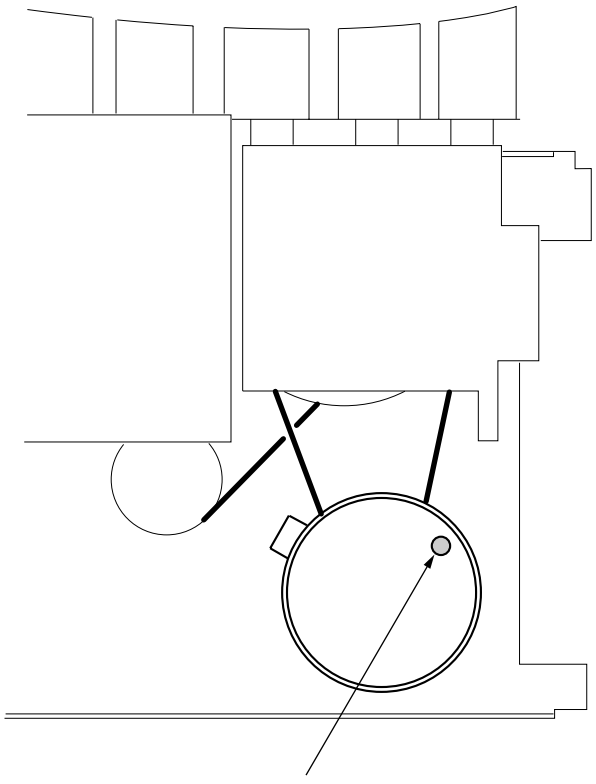
Adjust so that the value on the digital frequency counter is 3,000 Hz.

Specification Value:

Digital frequency counter
2,910 to 3,090 Hz

Adjust so that the frequency at the beginning and that at the end of tape winding are between 2,910 to 3,090 Hz.

Adjustment Location:

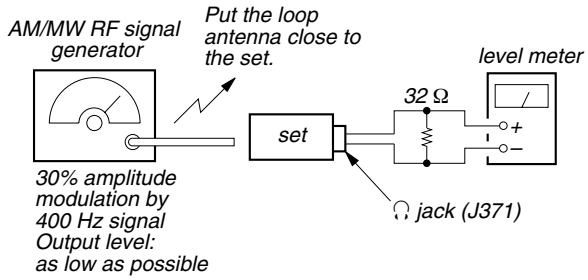


Tape speed adjustment control inside motor

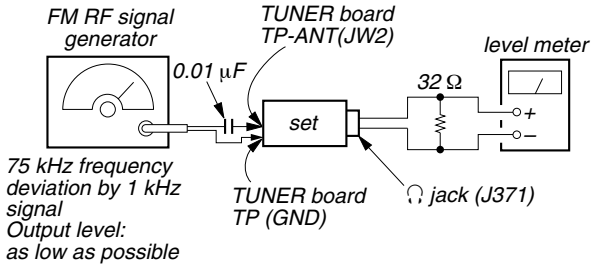
TUNER SECTION

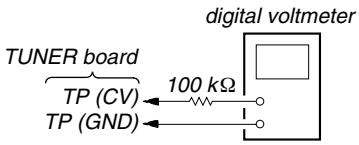
0 dB = 1 μV

[AM]
Setting:
Function: RADIO
Band: AM



[FM]
Setting:
Function: RADIO
BAND button: FM





- Repeat the procedures in each adjustment several times, and the tracking adjustments should be finally done by the trimmer capacitors.
- Remove FM antenna in FM adjustment.

AM IF ADJUSTMENT	
Adjust for a maximum reading on level meter	
T1	450 kHz

AM FREQUENCY COVERAGE ADJUSTMENT (MX model)		
Adjustment Part	Frequency Display	Reading on Digital Voltmeter
L4	530 kHz	1.0 ± 0.05 V
Confirmation	1,710 kHz	5.3 ± 0.7 V

AM FREQUENCY COVERAGE ADJUSTMENT (EXCEPT MX model)		
Adjustment Part	Frequency Display	Reading on Digital Voltmeter
L4	531 kHz	1.0 ± 0.05 V
Confirmation	1,611 kHz	4.8 ± 0.7 V

AM TRACKING ADJUSTMENT (MX model)	
Adjust for a maximum reading on level meter	
L3	620 kHz
CT3	1,400 kHz

AM TRACKING ADJUSTMENT (EXCEPT MX model)	
Adjust for a maximum reading on level meter	
L3	621 kHz
CT3	1,404 kHz

FM IF ADJUSTMENT	
Adjust for a minimum reading on level meter	
T2	10.7 MHz

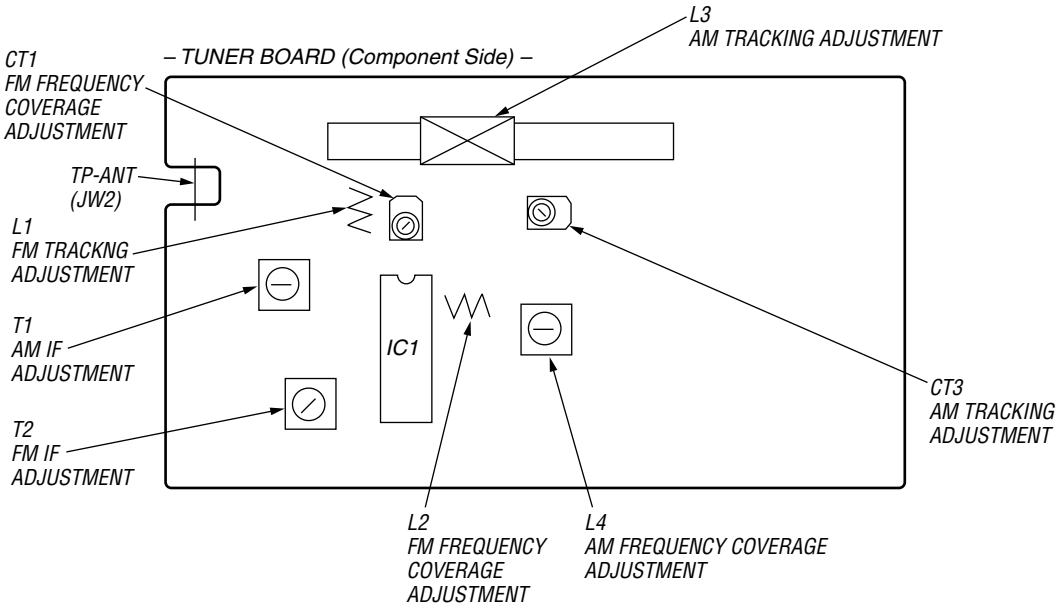
FM FREQUENCY COVERAGE ADJUSTMENT		
Adjustment Part	Frequency Display	Reading on Digital Voltmeter
L2	108 MHz	3.0 ± 0.2 V
Confirmation	87.5 MHz	1.3 ± 0.3 V

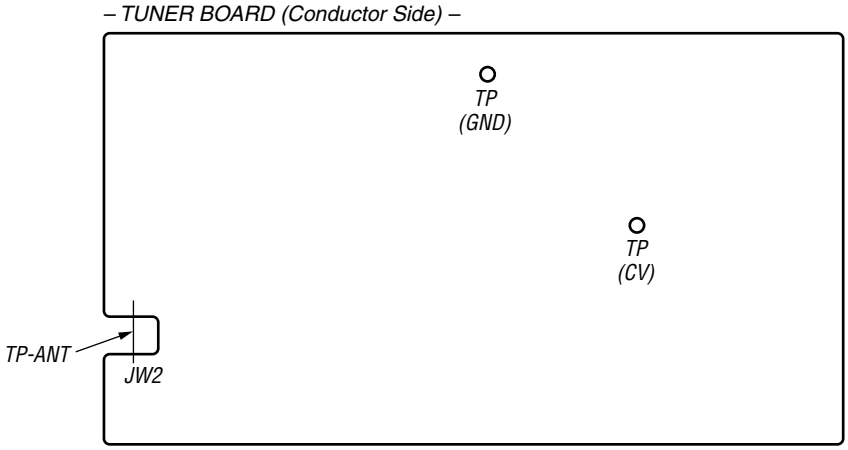
FM TRACKING ADJUSTMENT	
Adjust for a maximum reading on level meter	
L1	87.5 MHz
CT1	108 MHz

- **Abbreviation**
  MX : Mexican model.

Adjustment and Connecting Location:
TUNER board (See page 15)

Adjustment and Connecting Location:





CD SECTION

[TEST DISC LIST]

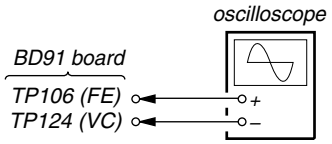
Use the following test disc on test mode.

- CD: YEDS-18 (PART No. 3-702-101-01)
  or
  PATD-012 (PART No. 4-225-203-01)

Note:

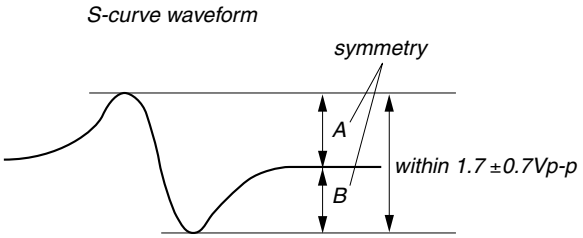
1. CD Block is basically designed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 (3-702-101-01) unless otherwise indicated.
3. Use an oscilloscope with more than 10MW impedance.
4. Clean the object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.

[S-CURVE CHECK]



Procedure :

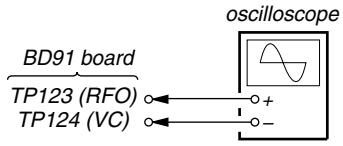
1. Connect an oscilloscope to TP106 (FE) and TP124 (VC).
2. Turn the power on.
3. Load a disc (YEDS-18) and actuate the focus search. (In consequence of open and close the disc tray, actuate the focus search).
4. Confirm that the oscilloscope waveform (S-curve) is symmetrical between A and B. And confirm peak to peak level within 1.7 ± 0.7 Vp-p.



Note:

- Try to measure several times to make sure than the ratio of A : B or B : A is more than 10 : 7.
- Take sweep time as long as possible and light up the brightness to obtain best waveform.

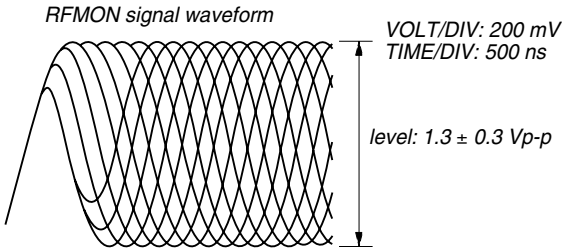
[RF LEVEL CHECK]



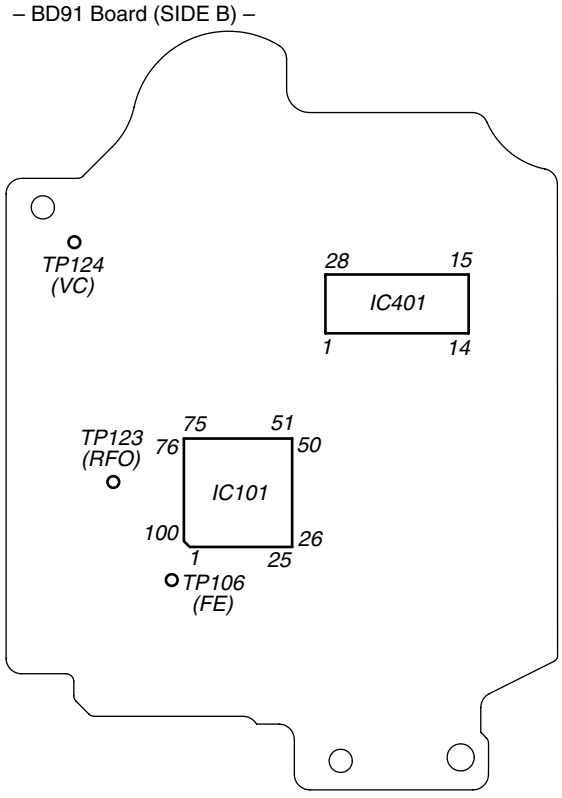
Procedure :

1. Connect an oscilloscope to TP123 (RFO) and TP124 (VC).
2. Turn the power on.
3. Load a disc (YEDS-18) and playback.
4. Confirm that oscilloscope waveform is clear and check if RF signal level is correct or not.

Note: Clear RF signal waveform means that the shape "◊" can be clearly distinguished at the center of the waveform.

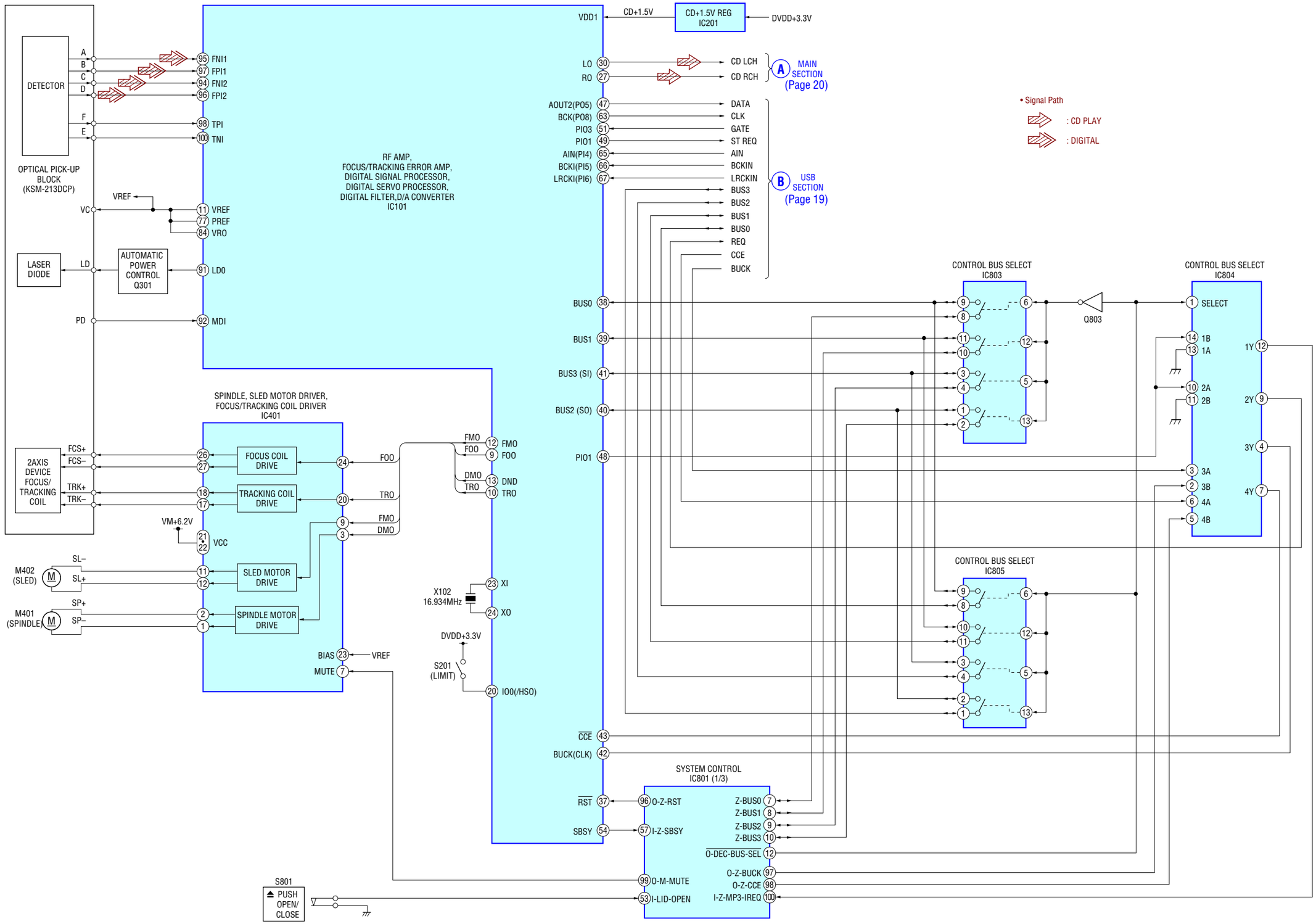


Connecting Location: CD board

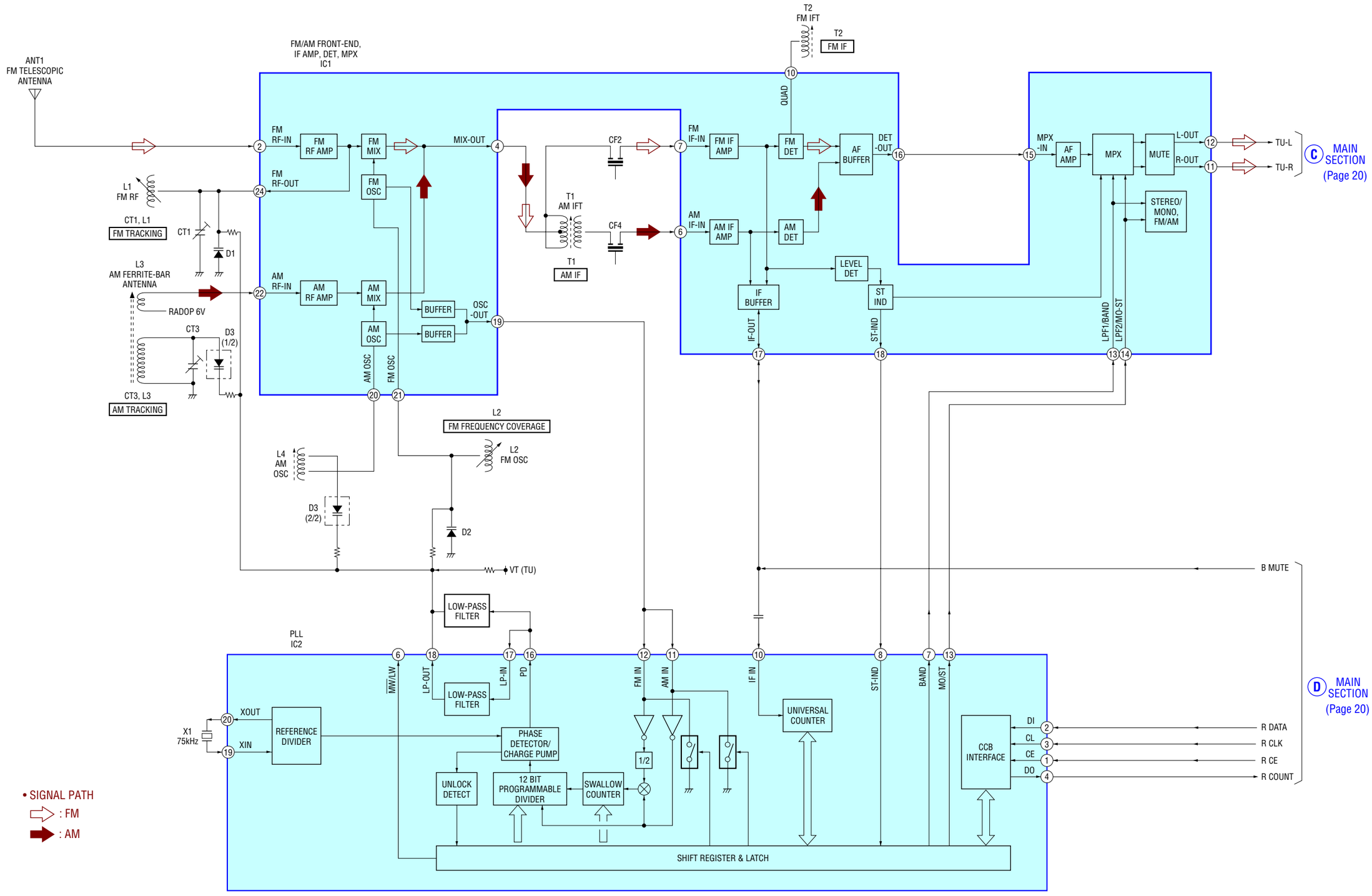


SECTION 6
DIAGRAMS

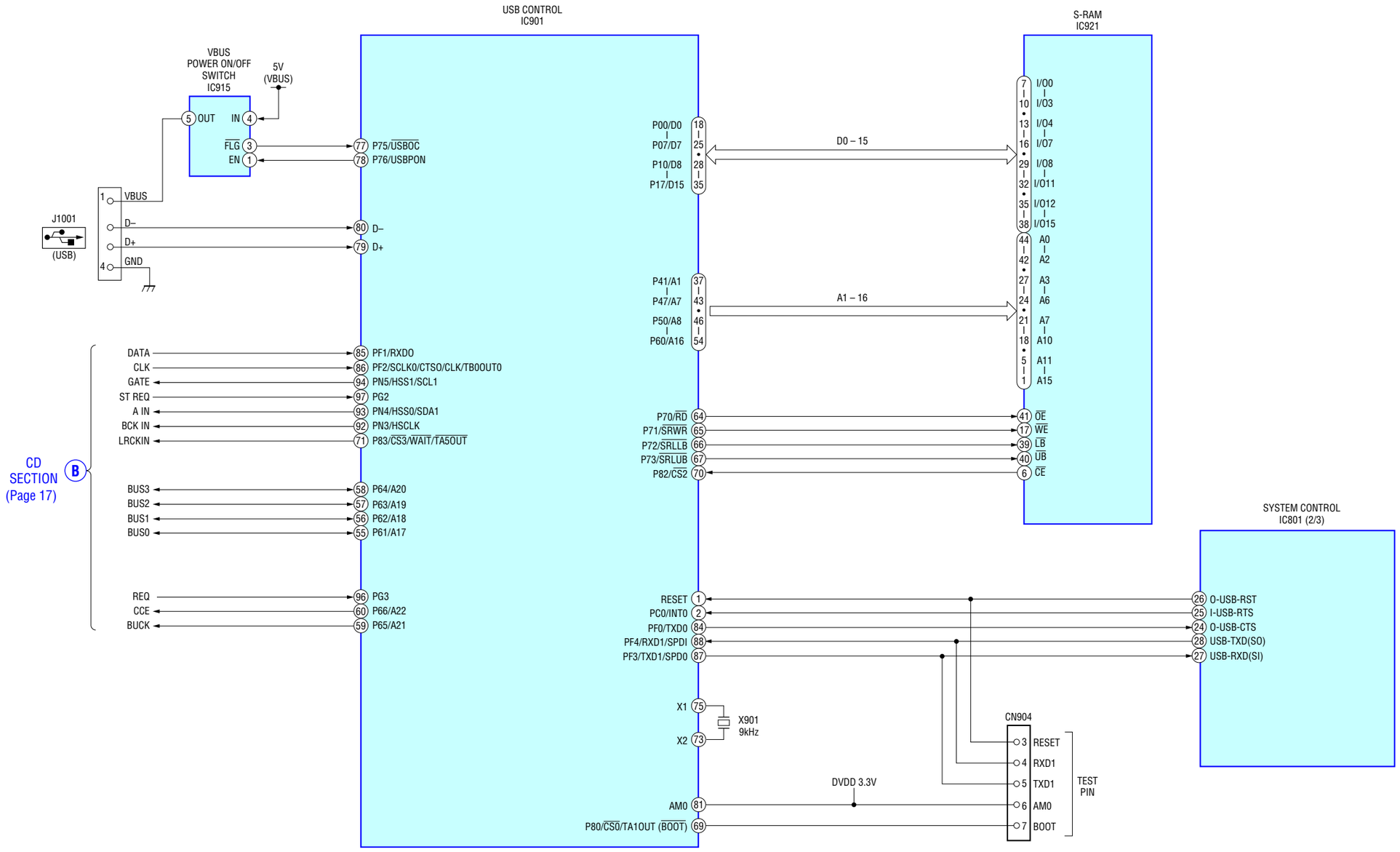
6-1. BLOCK DIAGRAM – CD Section –



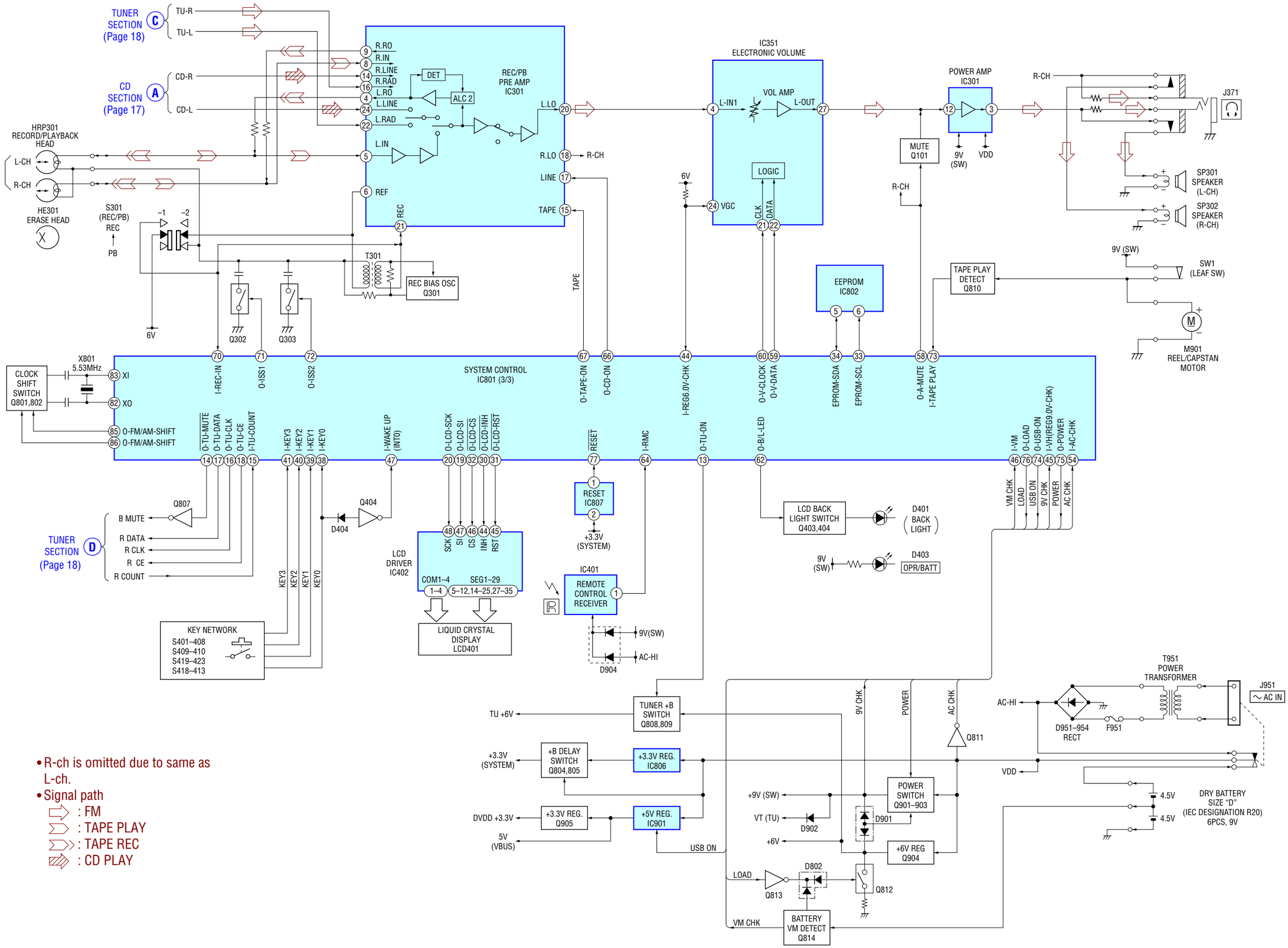
6-2. BLOCK DIAGRAM – TUNER Section –



6-3. BLOCK DIAGRAM – USB Section –



6-4. BLOCK DIAGRAM – MAIN Section –



- R-ch is omitted due to same as L-ch.
- Signal path
  - ⇨ : FM
  - ⇨ : TAPE PLAY
  - ⇨ : TAPE REC
  - ⇨ : CD PLAY

• NOTE FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.
(In addition to this, the necessary note is printed in each block.)

Note on Schematic Diagrams:

- All capacitors are in μF unless otherwise noted. (p: pF) 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal tolerance.
- ▭ : panel designation.

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

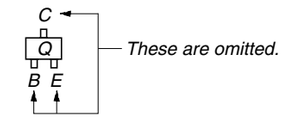
- ▬ : B+ Line.
- ▭ : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  – BD91 Board –
  no mark : CD PLAY
  – TUNER Board –
  no mark : FM
  ( ) : AM
  – USB Board –
  no mark : USB PLAY
  – Other Boards –
  no mark : FM
  ( ) : PB
  < > : REC
  [ ] : CD PLAY
  << >> : USB
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : FM
  ➡ : AM
  Σ : PB (TAPE)
  Σ» : REC (TAPE)
  ⇨ : CD PLAY (ANALOG OUT)
  ⇨ : CD PLAY (DIGITAL OUT)
- Abbreviation
  CET : East European model.
  E41 : AC 230V area in E model.
  IT : Italian model.
  MX : Mexican model.
  RU : Russian model.
  SP : Singapore model.

Note on Printed Wiring Boards:

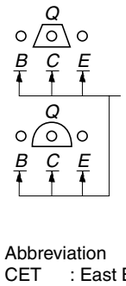
- o——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- ⊡ : indicates side identified with part number.
- △ : internal component.
- ▬ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

Caution:
Pattern face side: (Conductor Side) — Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component Side) — Parts on the parts face side seen from the parts face are indicated.



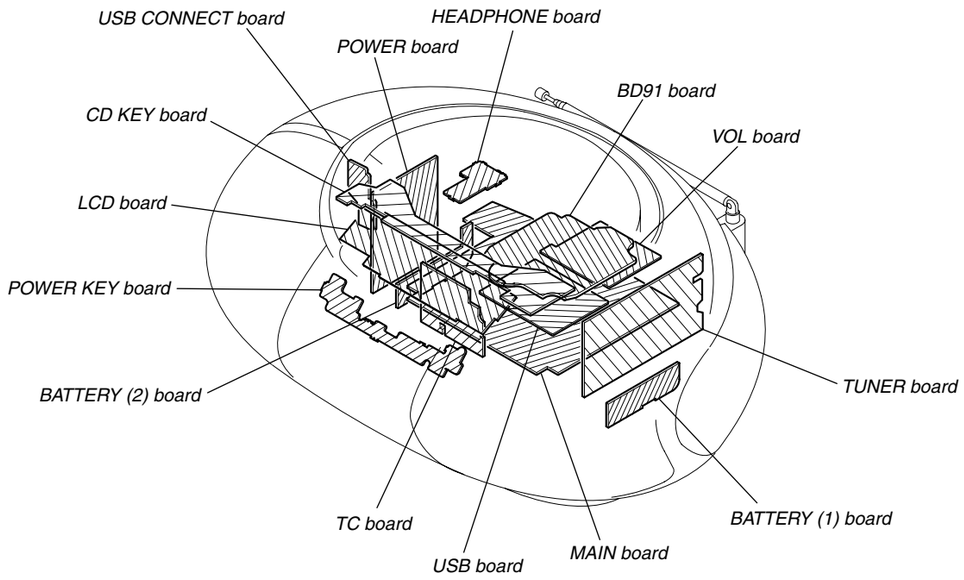
These are omitted.



These are omitted.

- Abbreviation
  CET : East European model.
  E41 : AC 230V area in E model.
  IT : Italian model.
  MX : Mexican model.
  RU : Russian model.
  SP : Singapore model.

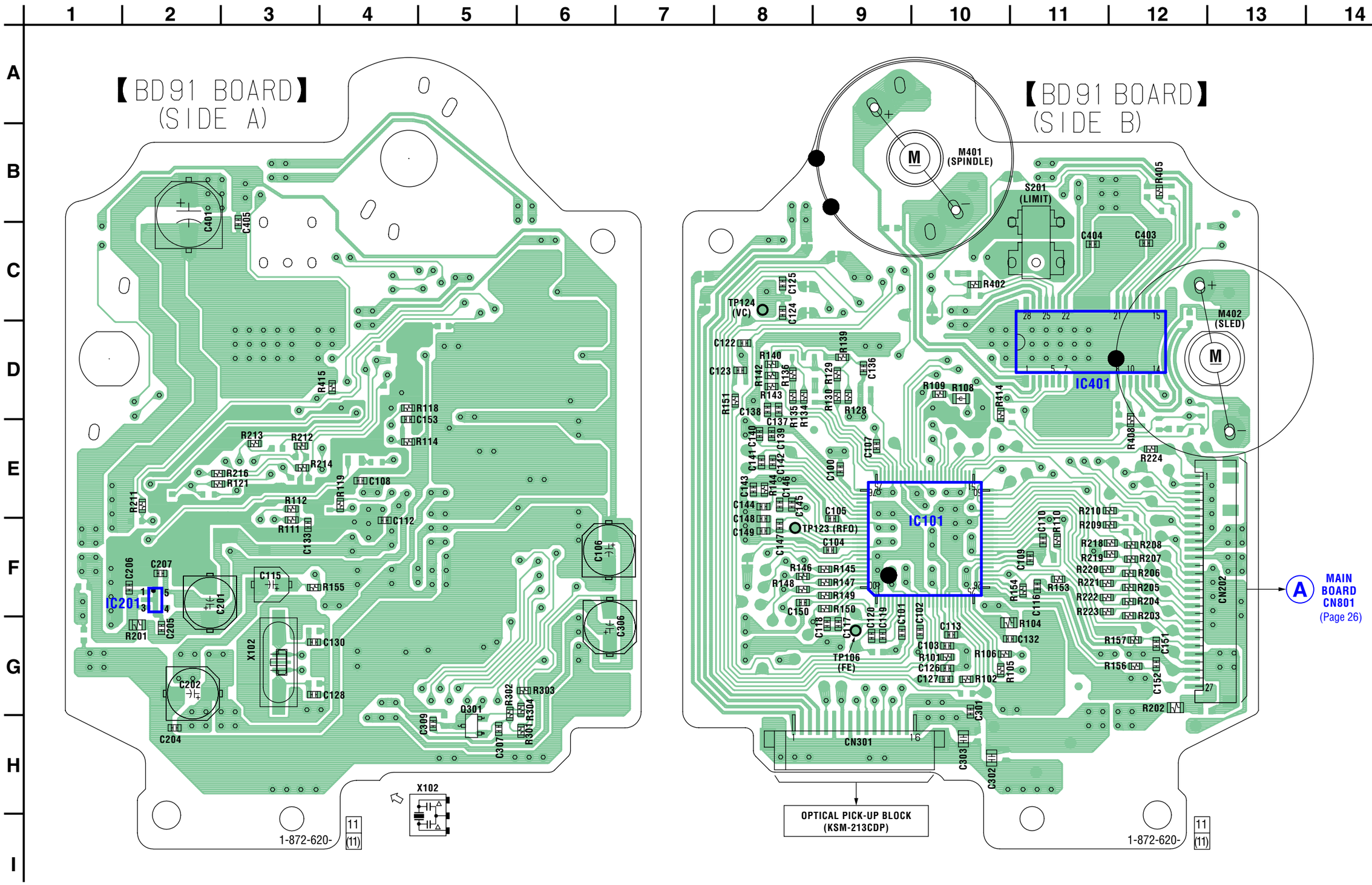
• Circuit Boards Location



6-5. PRINTED WIRING BOARD – BD91 Section –

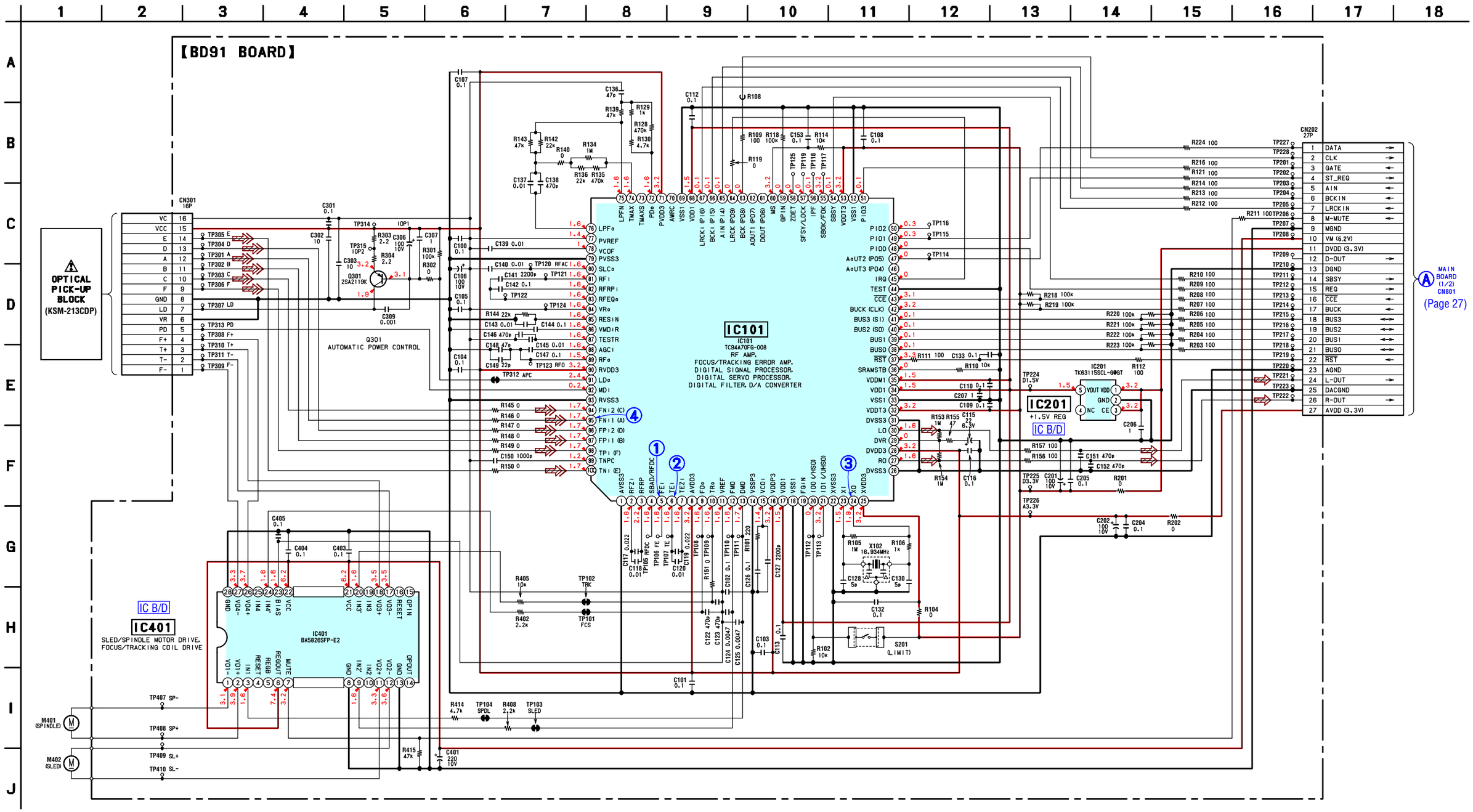
• See page 21 for Circuit Boards Location.

: Uses unleaded solder.



6-6. SCHEMATIC DIAGRAM – BD91 Section –

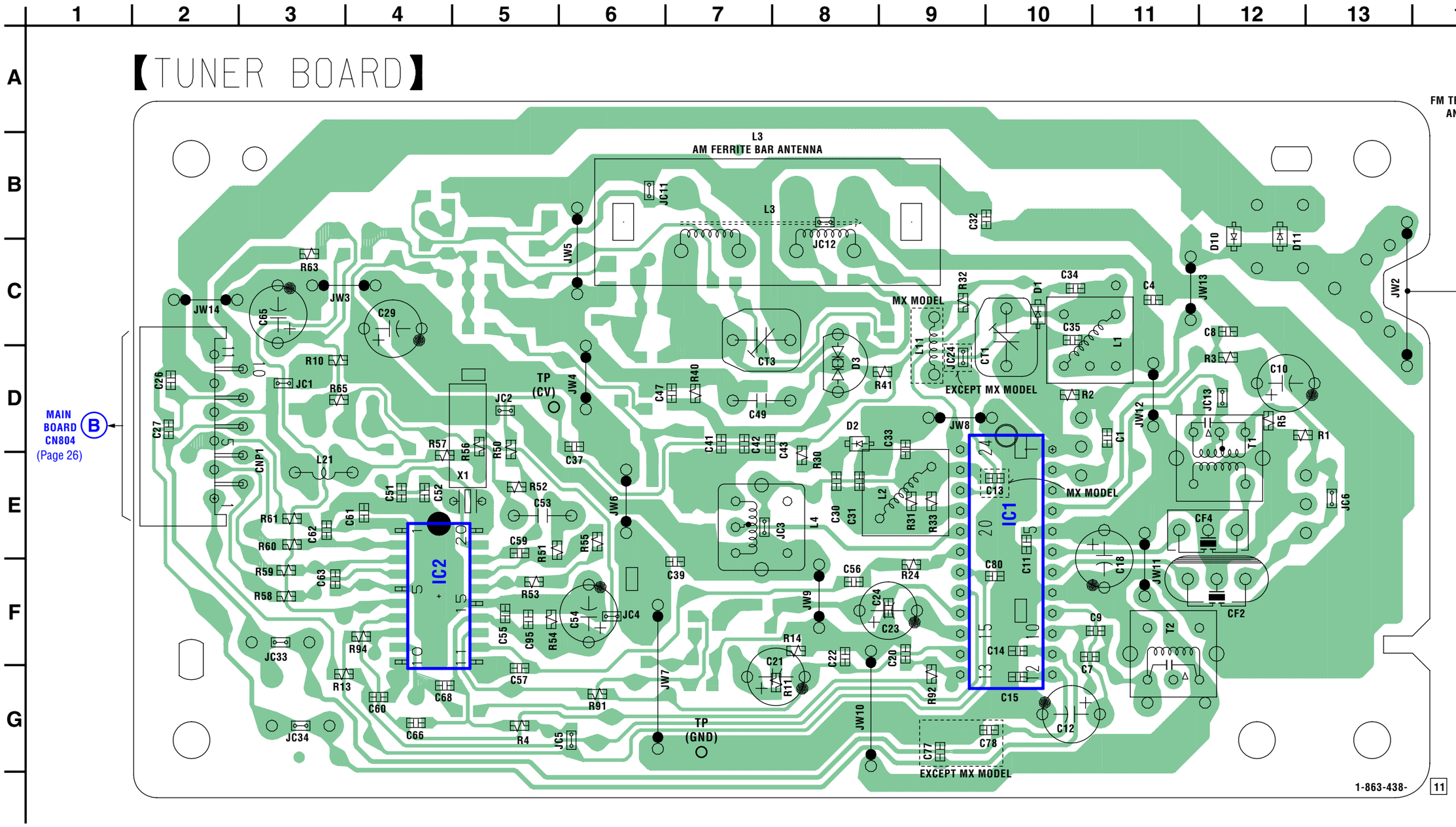
• See page 39 for Waveforms.
• See page 40 for IC Block Diagrams.
• See page 43 for IC Pin Description of IC101.



6-7. PRINTED WIRING BOARD – TUNER Section –

• See page 21 for Circuit Boards Location. : Uses unleaded solder.

【TUNER BOARD】

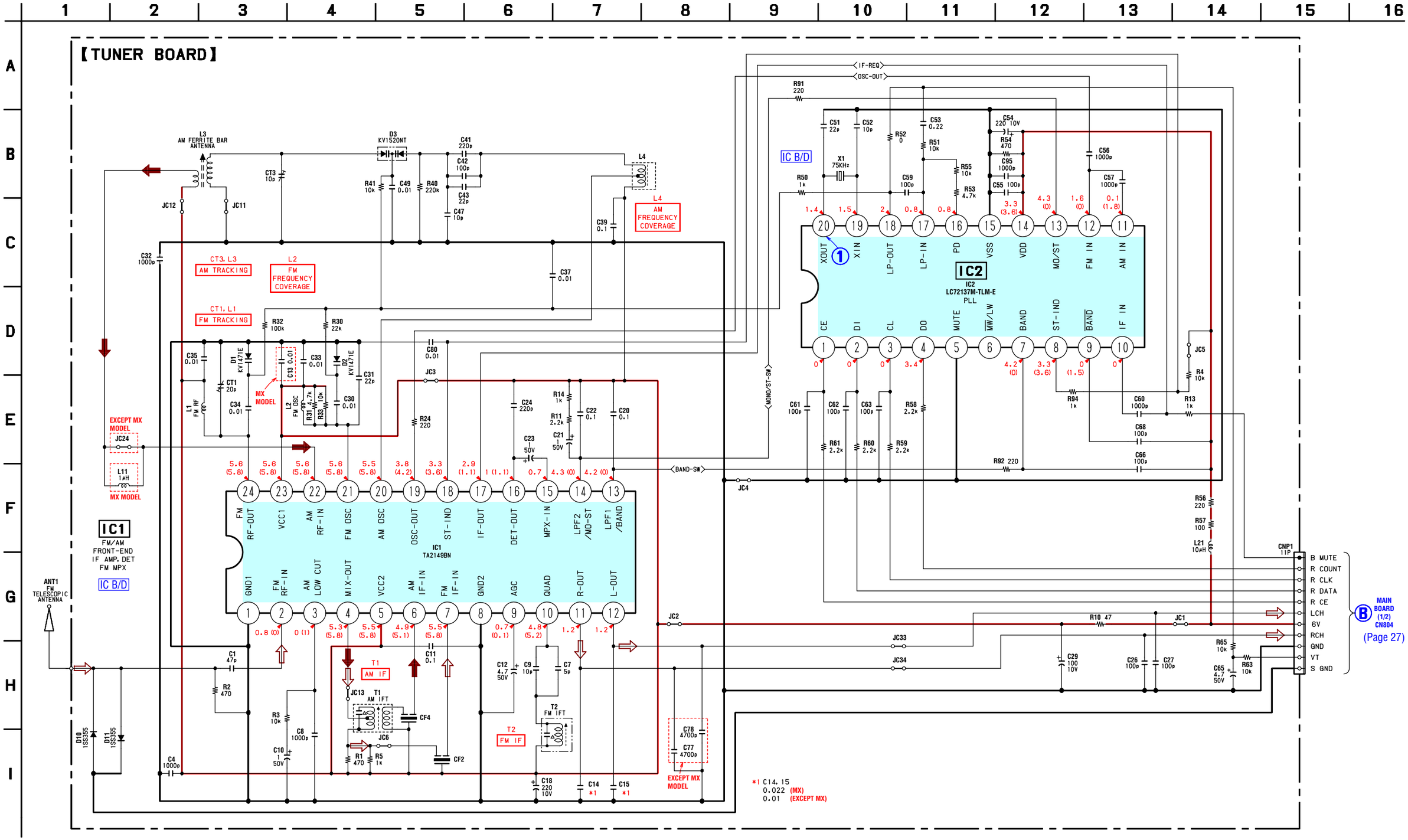


• **Semiconductor Location**

Ref. No.	Location
D1	C-10
D2	D-8
D3	D-8
D10	B-12
D11	B-12
IC1	E-10
IC2	F-4

6-8. SCHEMATIC DIAGRAM – TUNER Section –

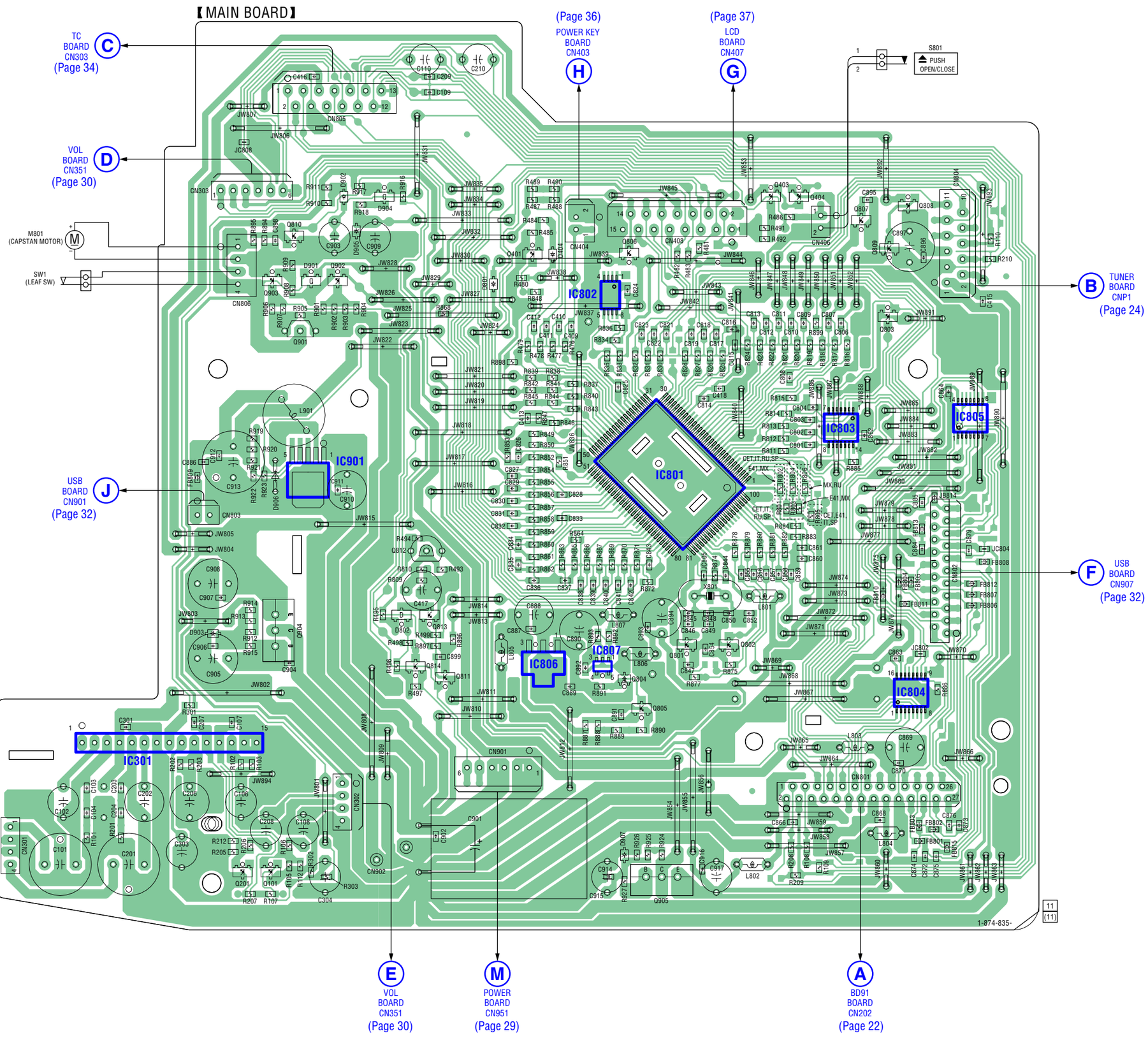
• See page 41 for IC Block Diagrams.
• See page 39 for Waveform.



6-9. PRINTED WIRING BOARD – MAIN Section –

• See page 21 for Circuit Boards Location. : Uses unleaded solder.

【MAIN BOARD】

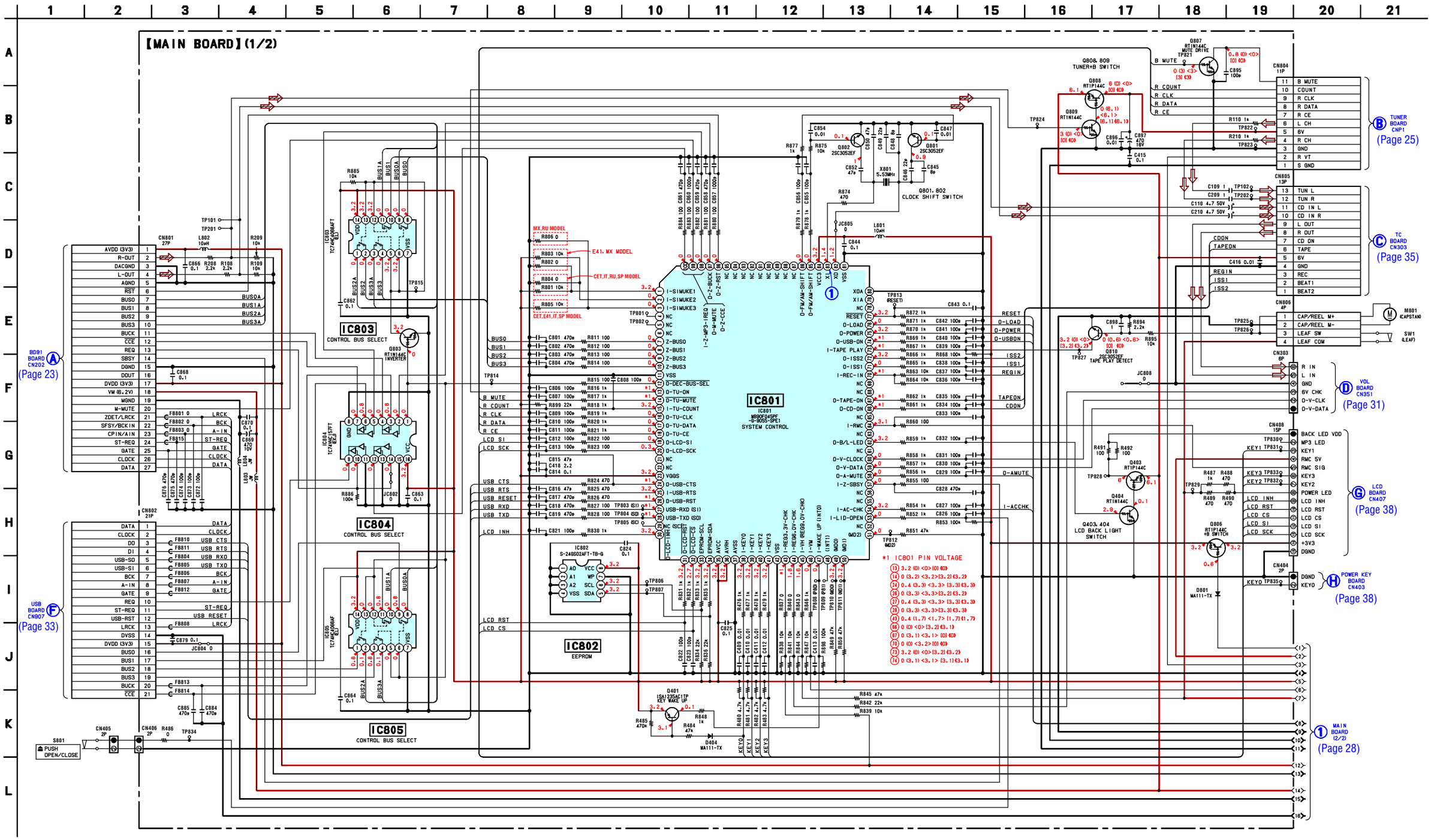


• **Semiconductor Location**

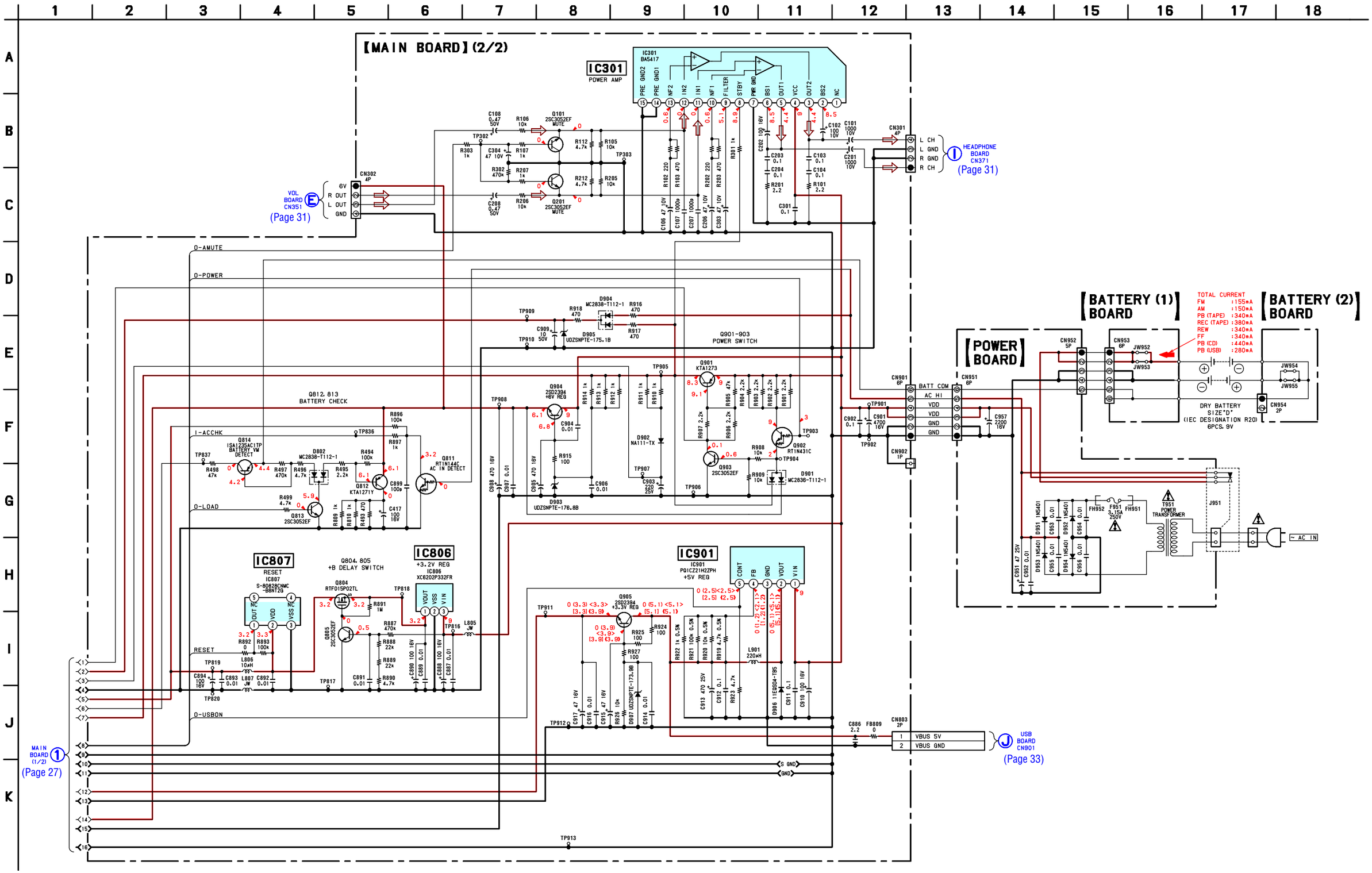
Ref. No.	Location
D404	C-7
D801	C-7
D802	G-6
D901	C-5
D902	B-5
D903	G-4
D904	C-6
D905	C-5
D906	E-5
D907	I-8
IC301	H-3
IC801	E-8
IC802	C-8
IC803	E-10
IC804	G-11
IC805	E-11
IC806	G-7
IC807	G-8
IC901	E-5
Q101	I-5
Q201	I-4
Q401	C-7
Q403	B-10
Q404	C-10
Q801	G-9
Q802	G-9
Q803	D-11
Q804	G-8
Q805	G-8
Q806	C-8
Q807	C-10
Q808	C-11
Q809	C-11
Q810	C-5
Q811	G-6
Q812	F-6
Q813	G-6
Q814	G-6
Q901	D-5
Q902	C-5
Q903	C-5
Q904	G-5
Q905	I-8

6-10. SCHEMATIC DIAGRAM – MAIN Section (1/2) –

- See page 39 for Waveform.
- See page 46 for IC Pin Description of IC801.



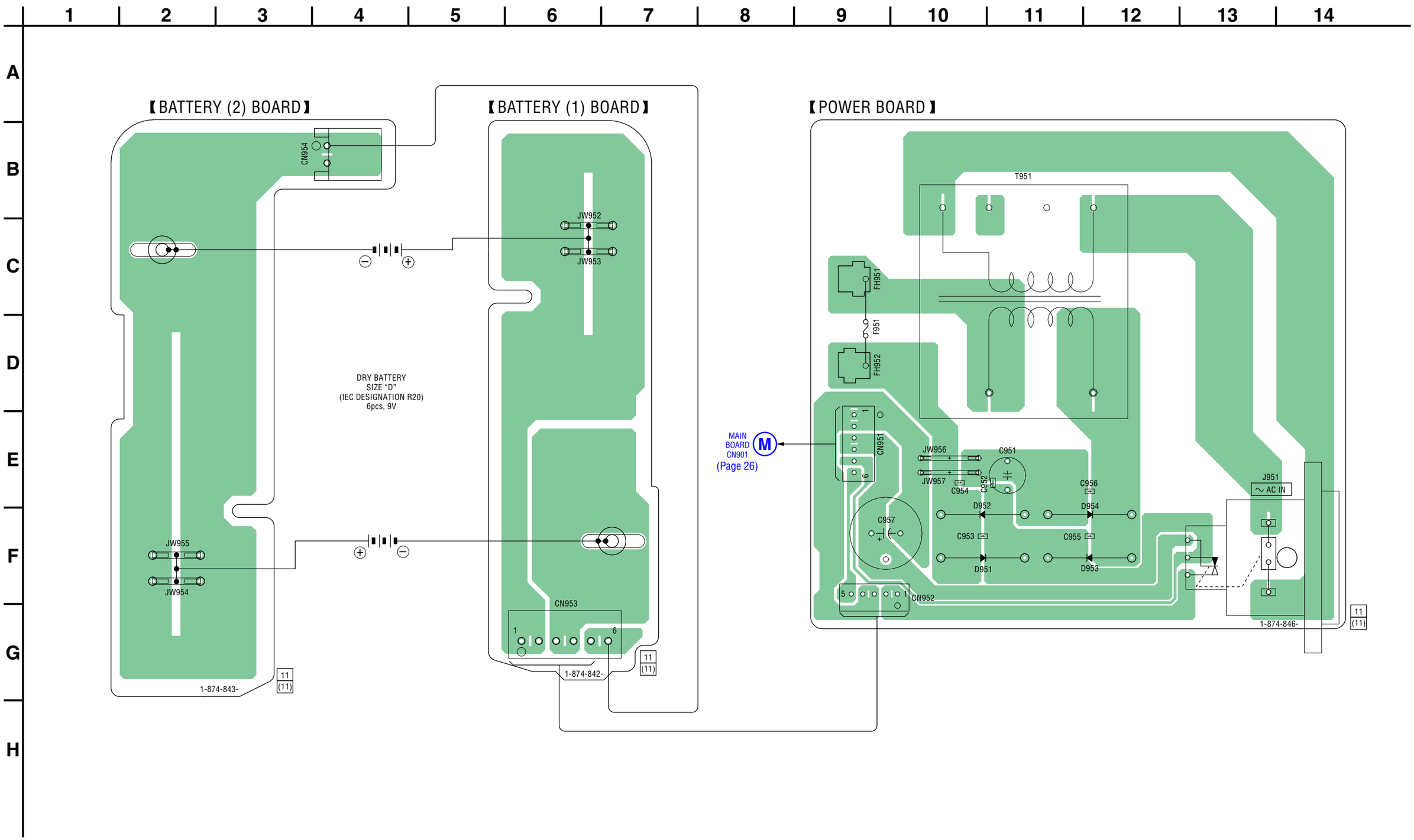
6-11. SCHEMATIC DIAGRAM – MAIN Section (2/2) –



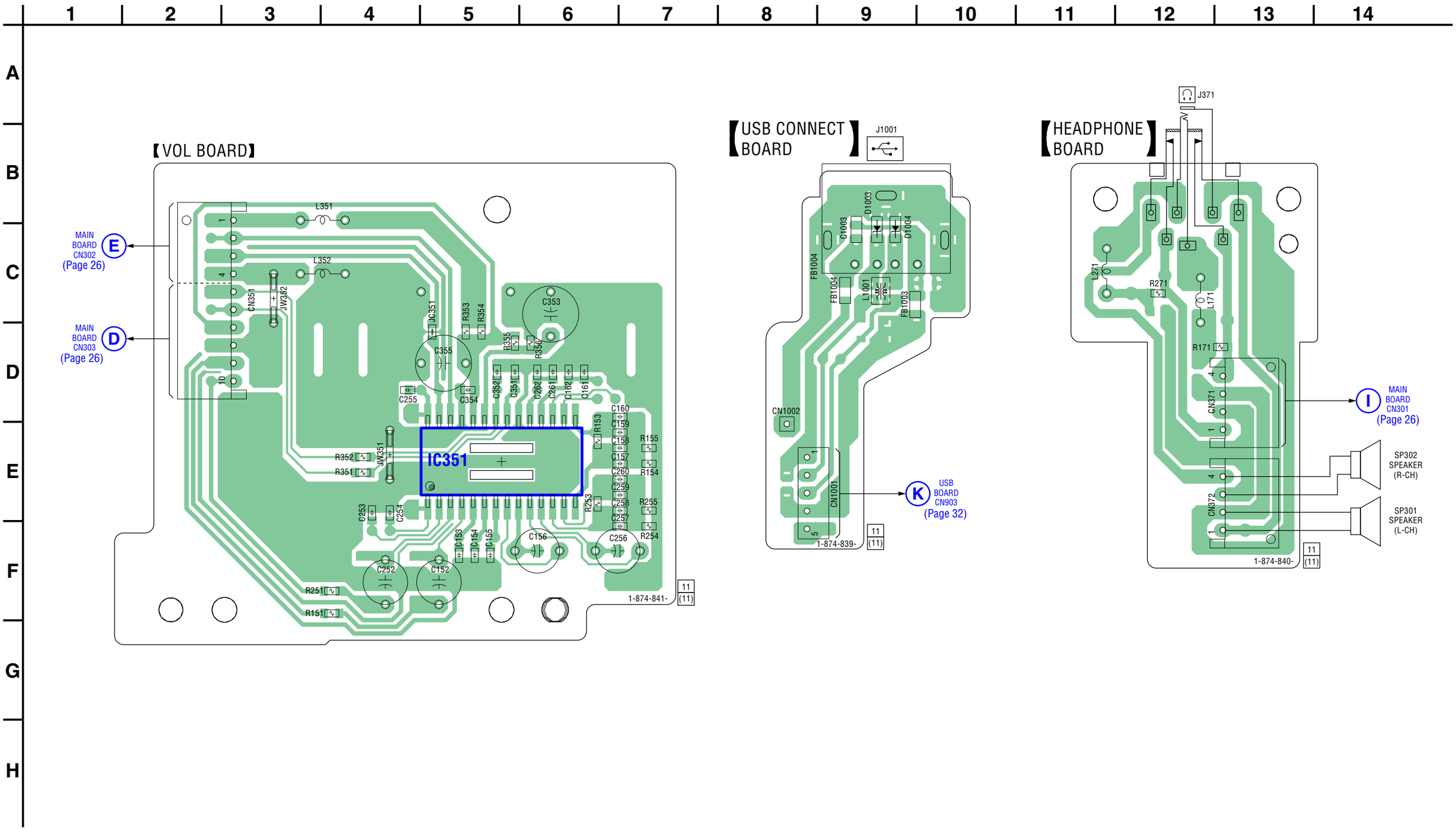
6-12. PRINTED WIRING BOARDS – POWER Section –

• See page 21 for Circuit Boards Location.

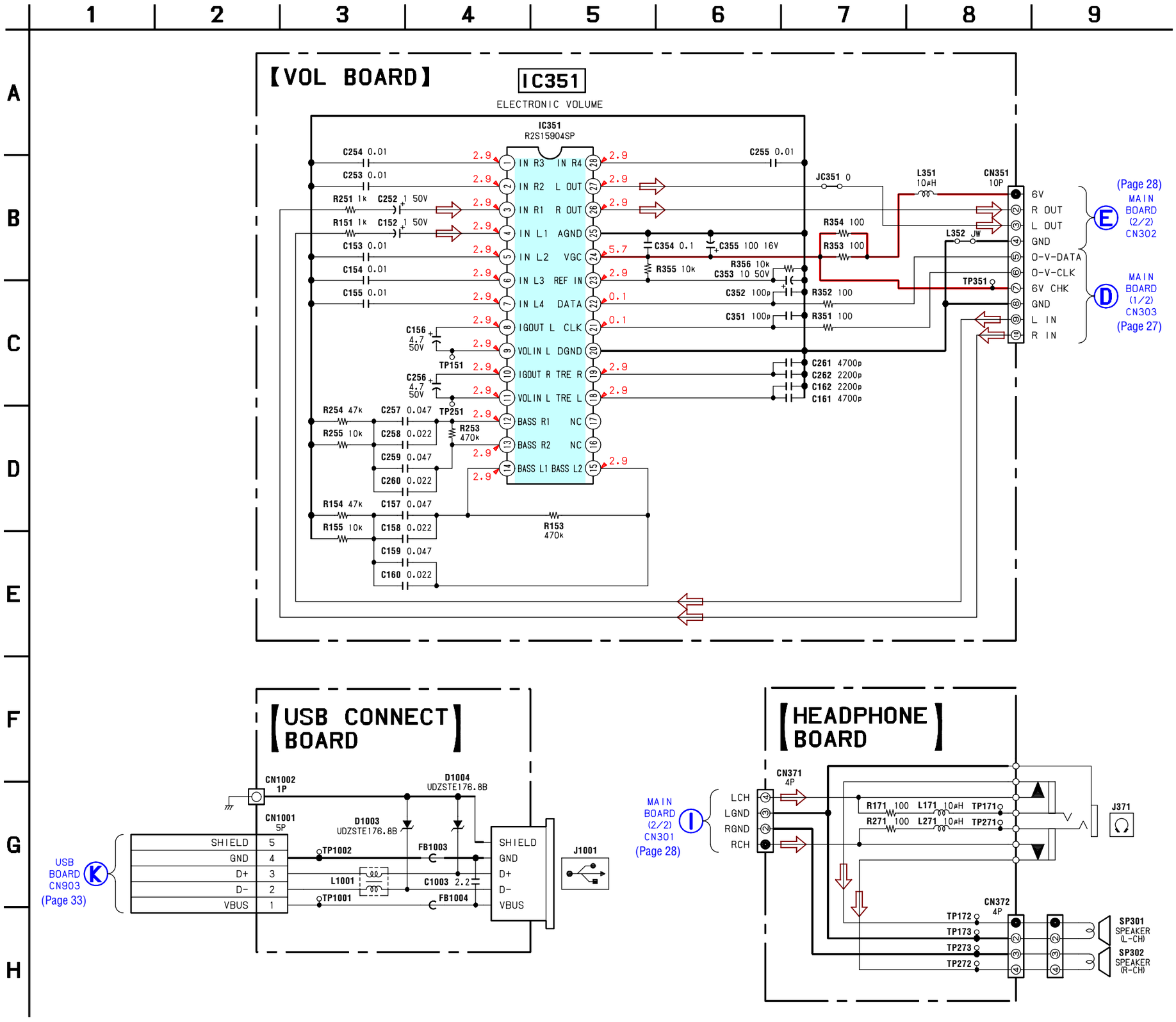
: Uses unleaded solder.



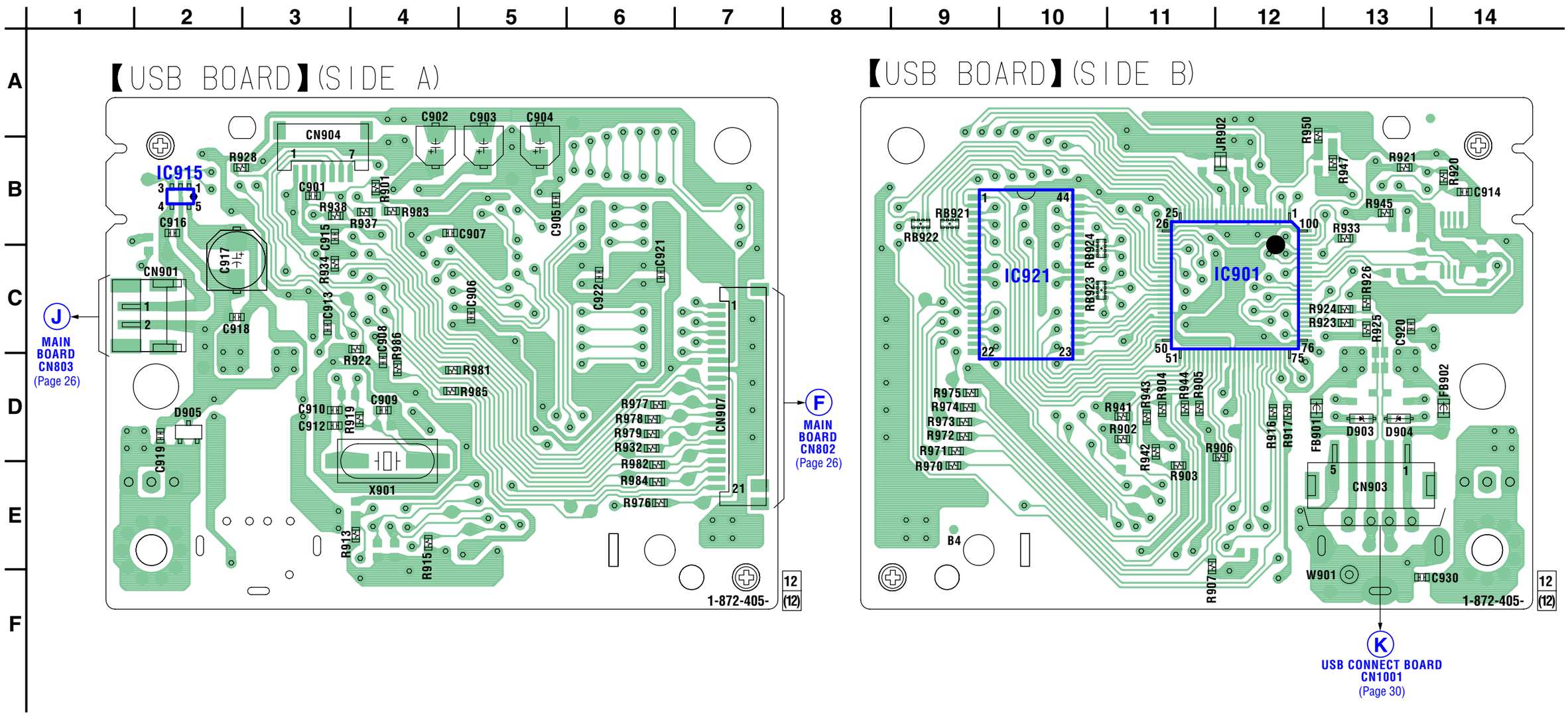
6-13. PRINTED WIRING BOARDS – HEADPHONE/USB CONNECT/VOL Section – • See page 21 for Circuit Boards Location. : Uses unleaded solder.



6-14. SCHEMATIC DIAGRAM – HEADPHONE/USB CONNECT/VOL Section –



6-15. PRINTED WIRING BOARD – USB Section – • See page 21 for Circuit Boards Location. : Uses unleaded solder.

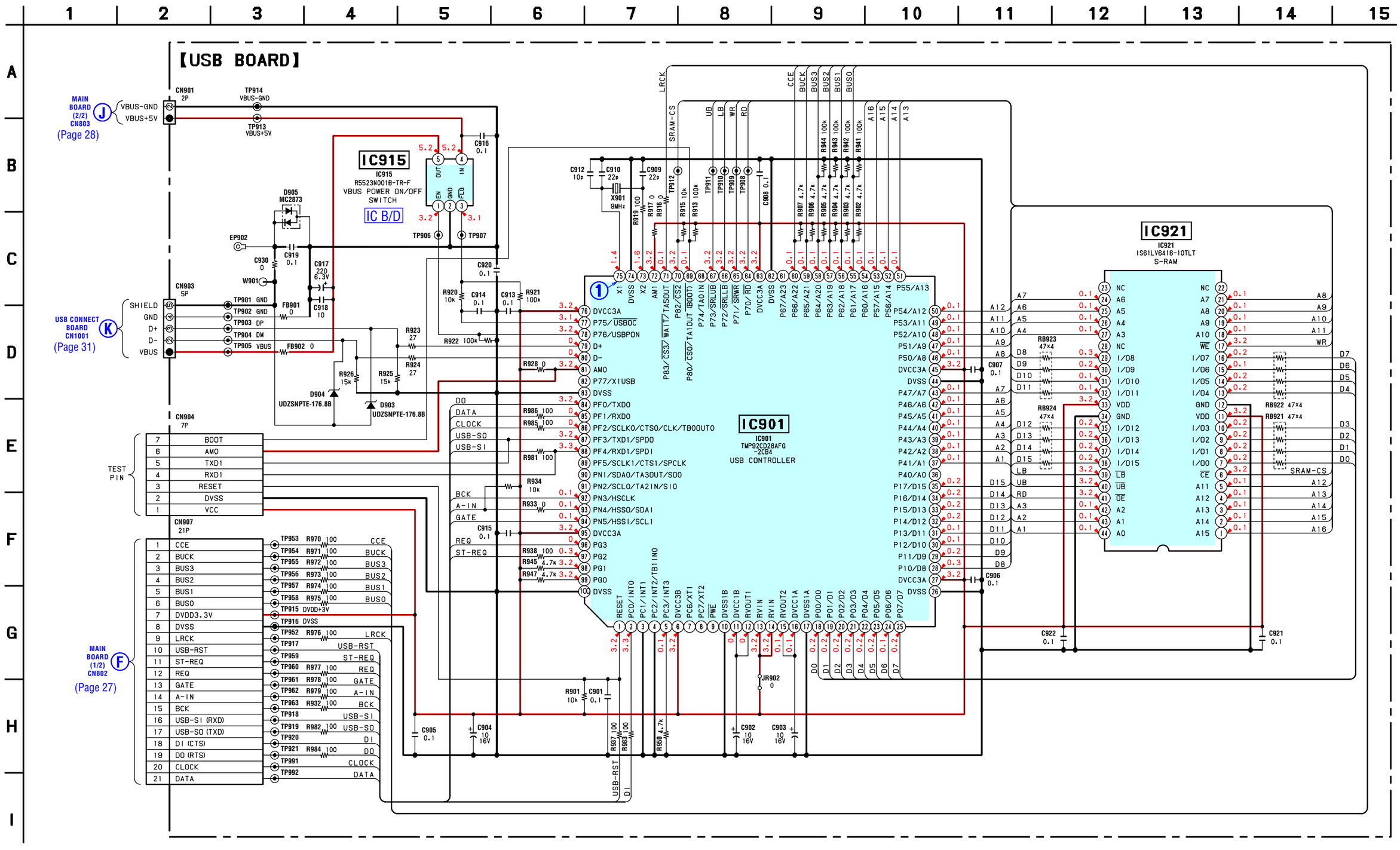


- **Semiconductor Location**

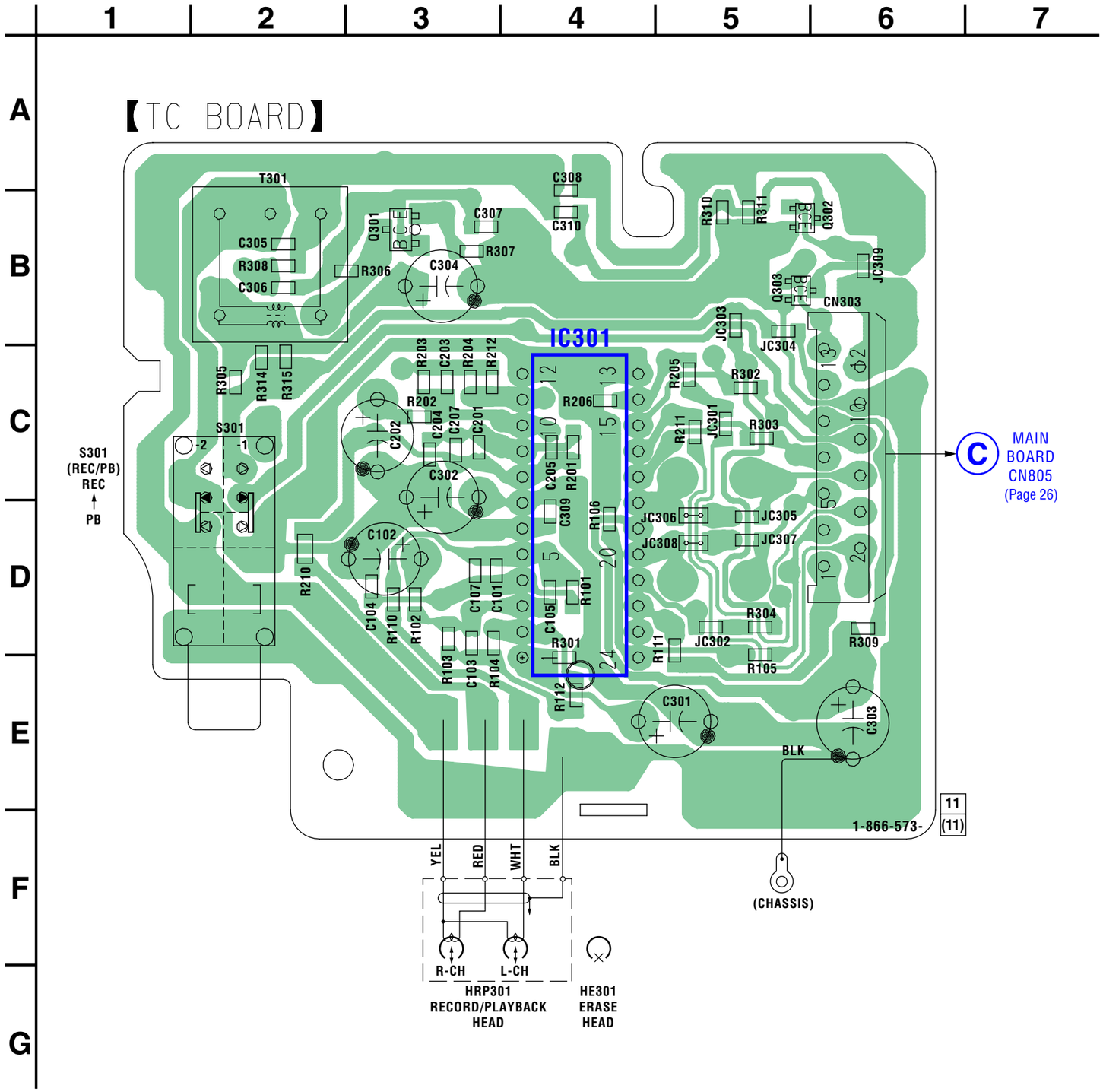
Ref. No.	Location
D903	D-13
D904	D-13
D905	D-2
IC901	C-12
IC915	B-2
IC921	C-10

6-16. SCHEMATIC DIAGRAM – USB Section –

• See page 39 for Waveform.
• See page 42 for IC Block Diagram.
• See page 48 for IC Pin Description of IC901.

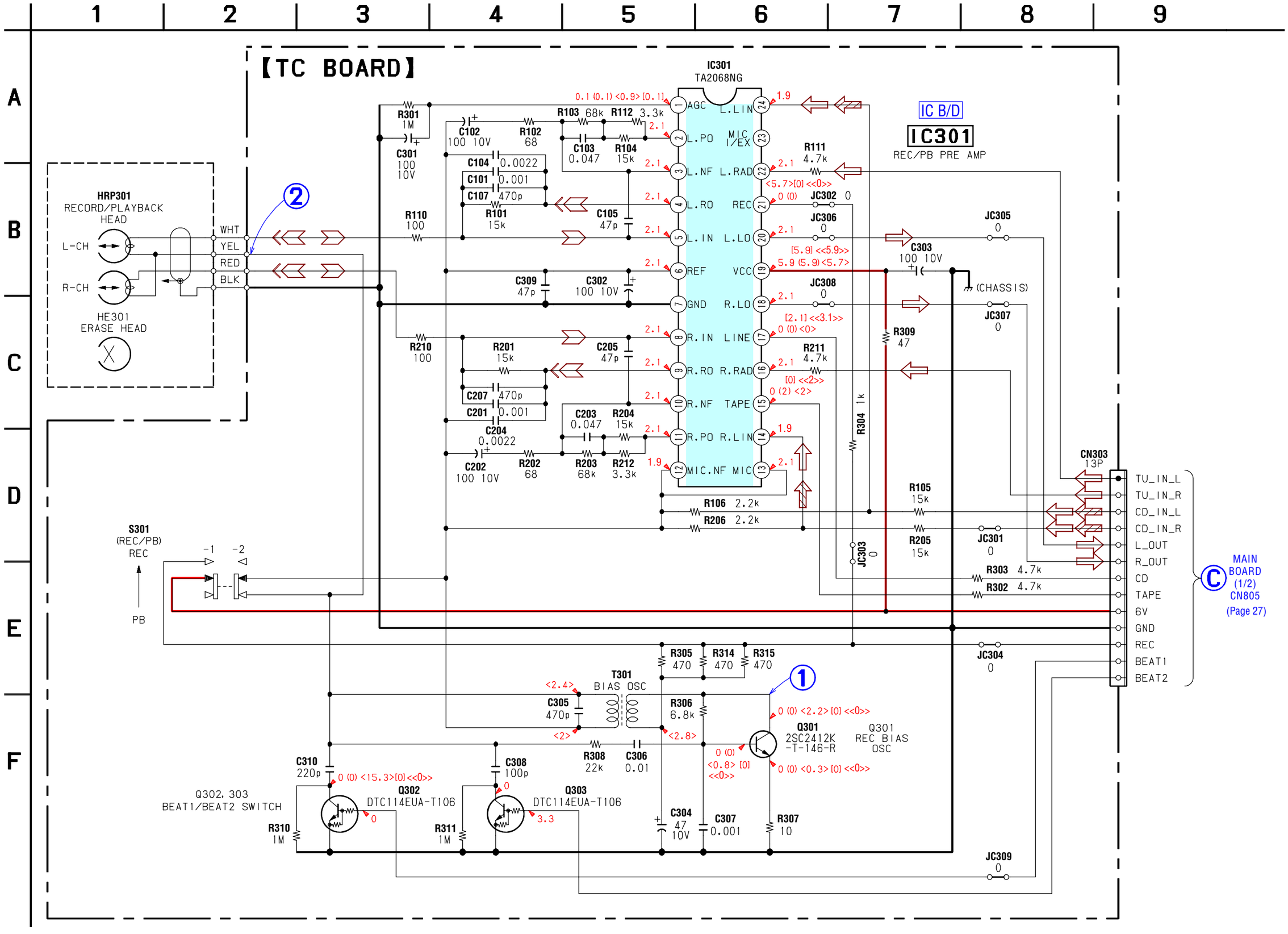


6-17. PRINTED WIRING BOARD – TC Section – • See page 21 for Circuit Boards Location. : Uses unleaded solder.



6-18. SCHEMATIC DIAGRAM – TC Section –

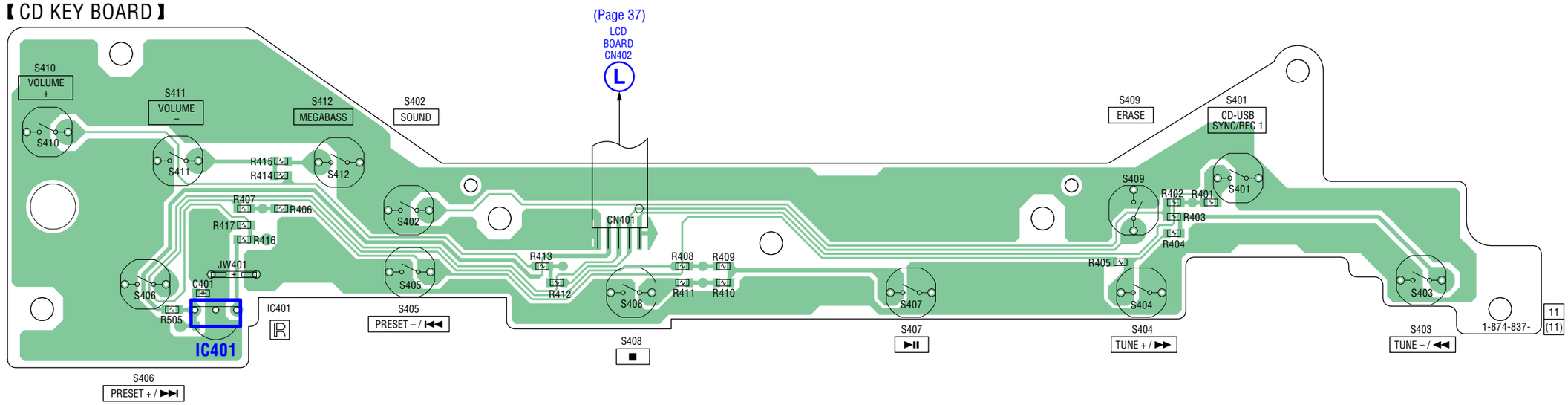
• See page 39 for Waveforms.
• See page 42 for IC Block Diagrams.



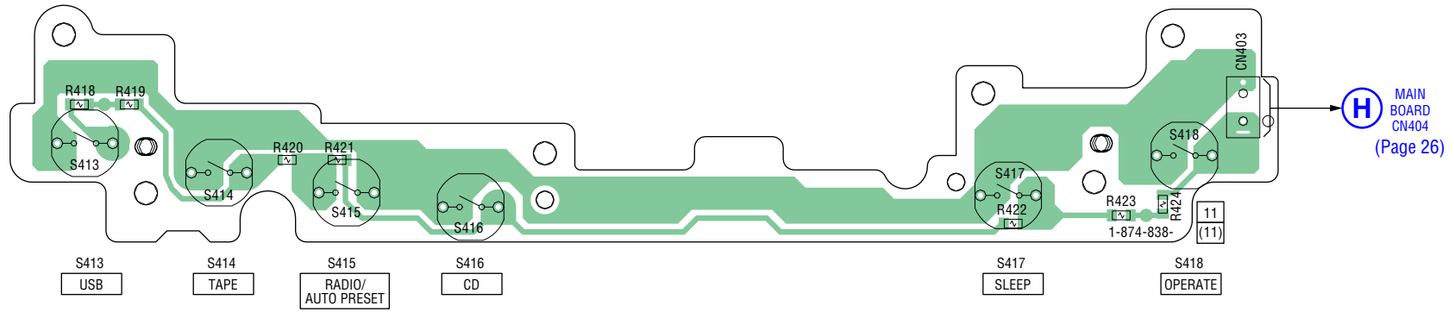
6-19. PRINTED WIRING BOARDS – KEY Section –

• See page 21 for Circuit Boards Location. : Uses unleaded solder.

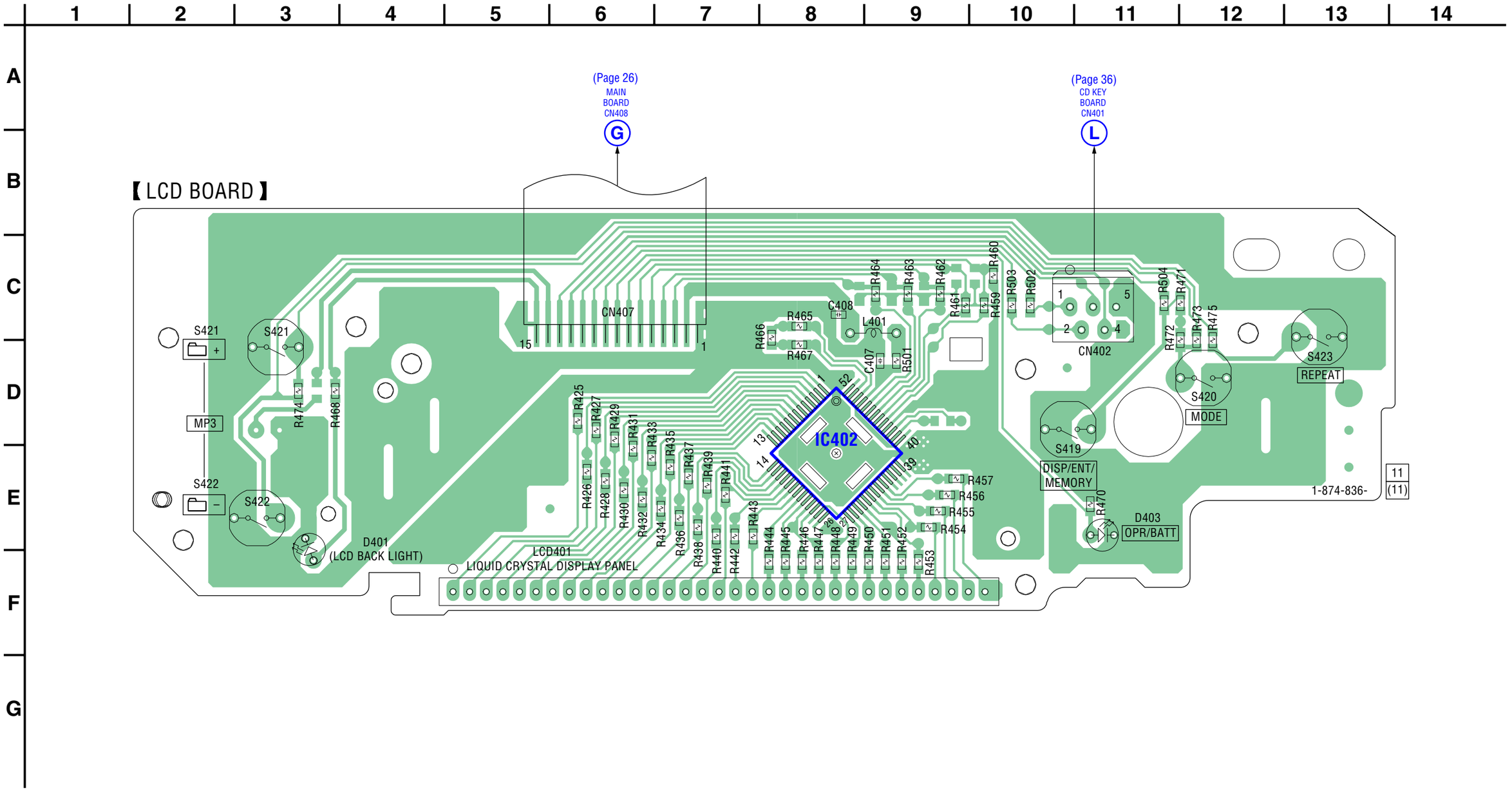
【CD KEY BOARD】



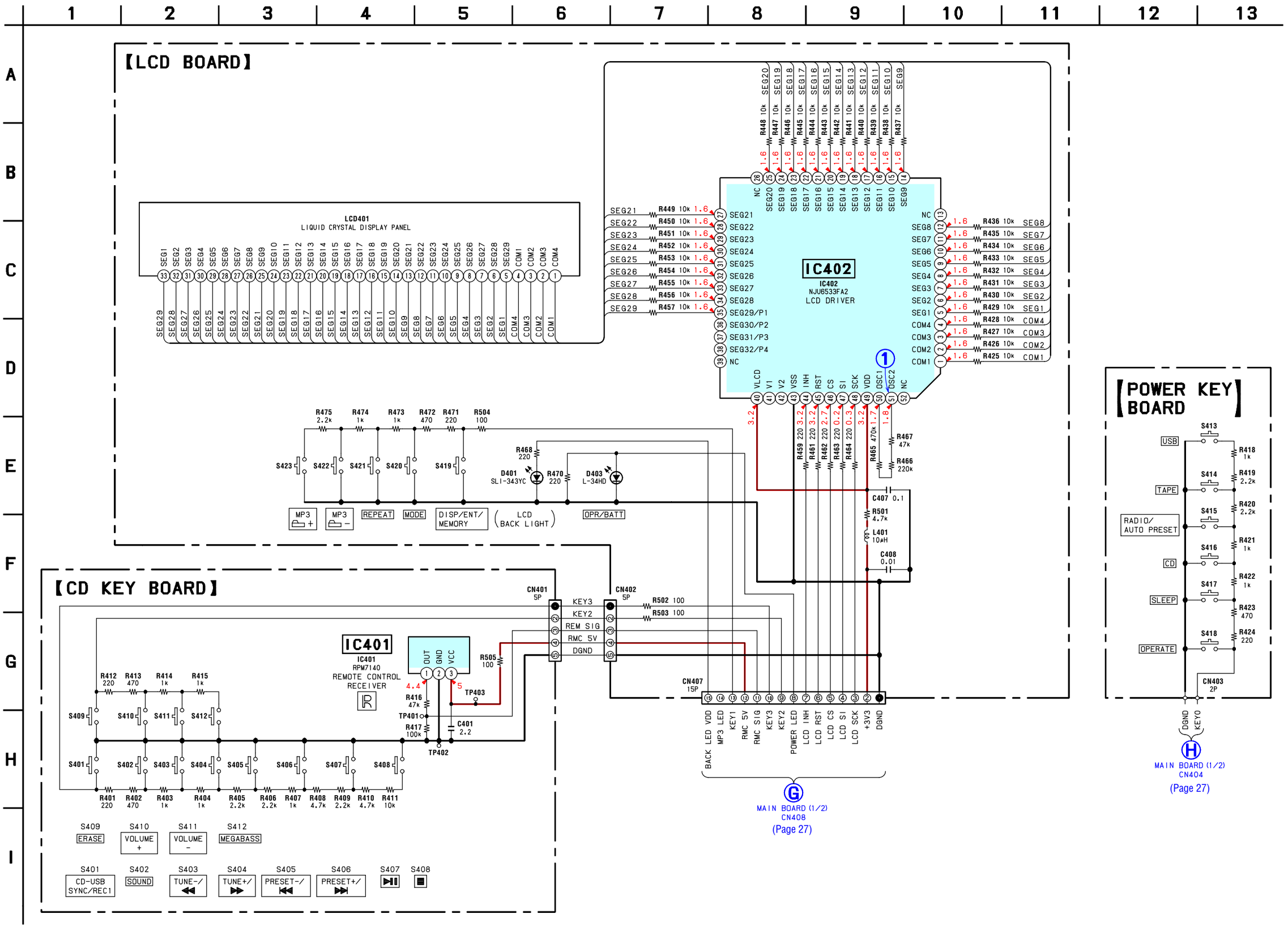
【POWER KEY BOARD】



6-20. PRINTED WIRING BOARD – LCD Section – • See page 21 for Circuit Boards Location. : Uses unleaded solder.



6-21. SCHEMATIC DIAGRAM – CONTROL Section – • See page 39 for Waveform.



• **Waveforms**

– BD91 Board – (CD PLAY)

① **IC101 ⑤ (FEI)**

100 mV/DIV, 5 msec/DIV

② **IC101 ⑥ (TEI)**

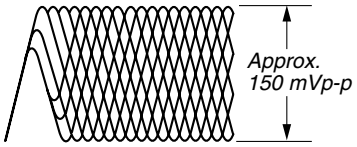
100 mV/DIV, 0.2 msec/DIV

③ **IC101 ㉔ (XO)**

16.934 MHz

1 V/DIV, 0.1 µsec/DIV

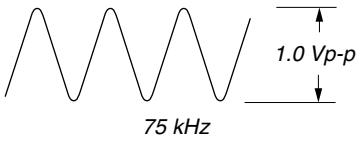
④ **IC101 ㉟ (FNI1(A))**



50 mV/DIV, 0.1 µsec/DIV

– TUNER Board –

① **IC2 ⑳ (XOUT)**

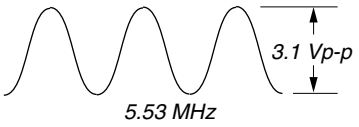


75 kHz

0.5 V/DIV, 5 µsec/DIV

– MAIN Board –

① **IC801 ㉝ (XI)**



5.53 MHz

1 V/DIV, 50 nsec/DIV

– USB Board –

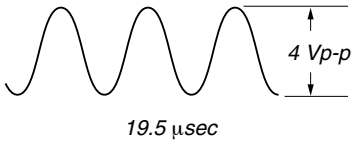
① **IC901 ㉕ (X1)**

9 MHz

1 V/DIV, 0.1 µsec/DIV

– TC Board –

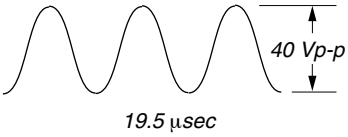
① **Q301 Ⓒ REC**



19.5 µsec

0.1 V/DIV, 5 µsec/DIV

② **T301, HRP301 (YEL)**

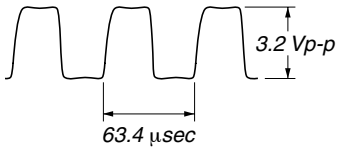


19.5 µsec

10 V/DIV, 5 µsec/DIV

– LCD Board –

① **IC402 ㊶ (OSC2)**

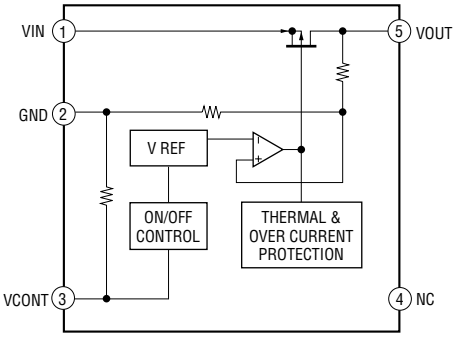


63.4 µsec

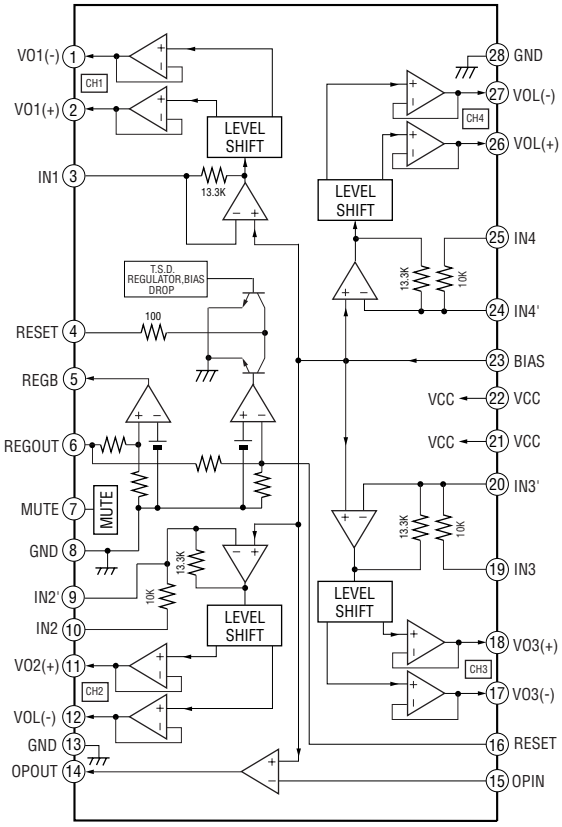
1 V/DIV, 20 µsec/DIV

- **IC Block Diagrams**

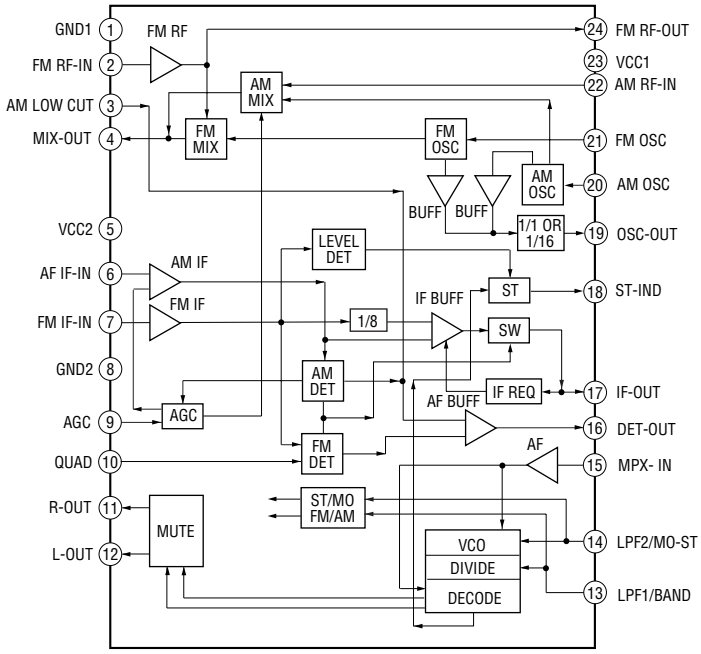
IC201 TK63115SCL-G@GT (BD91 Board)



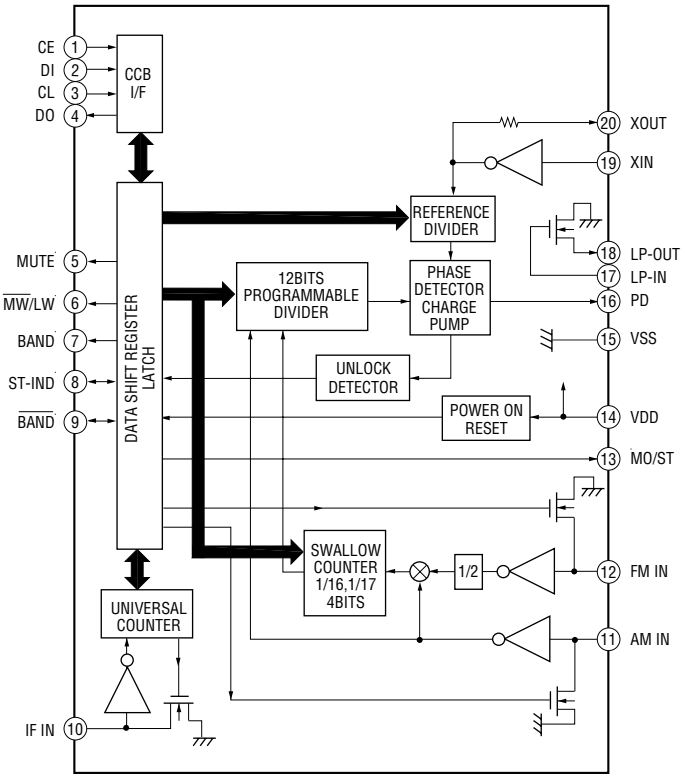
IC401 BA5826SFP-E2 (BD91 Board)



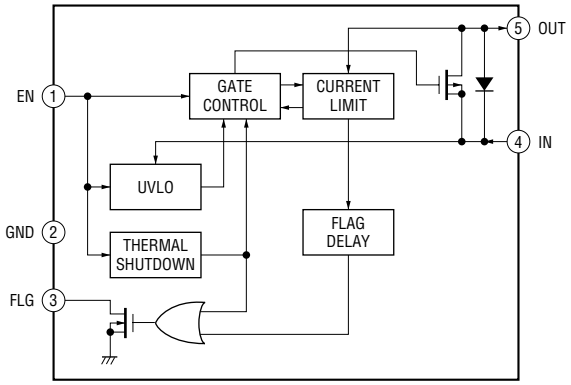
IC1 TA2149BN (TUNER Board)



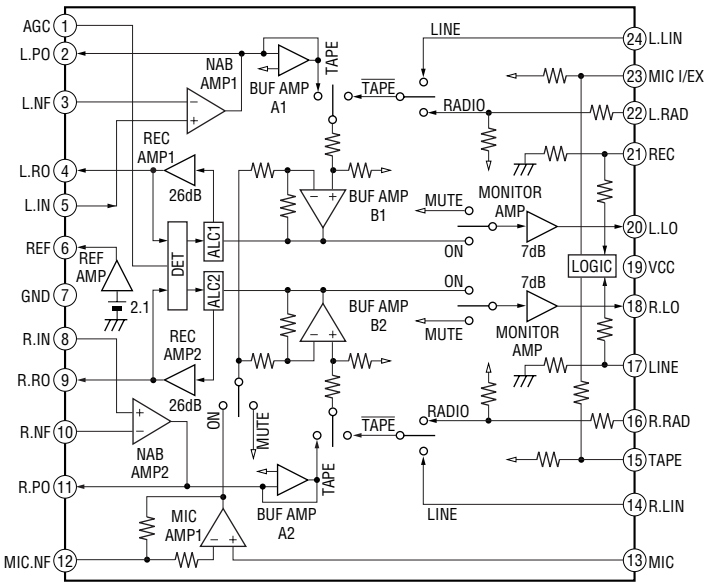
IC2 LC72137M-TLM-E (TUNER Board)



IC915 R5523N001B-TR-F (USB Board)



IC301 TA2068NG (TC Board)



• **IC Pin Descriptions**

IC101 TC94A70FG-008 (S, D) (RF AMP, FOCUS/TRACKING ERROR AMP, DIGITAL SIGNAL PROCESSOR, DIGITAL SERVO PROCESSOR, DIGITAL FILTER, D/A CONVERTER) (BD91 BOARD)

Pin No.	Pin Name	I/O	Pin Description
1	AVSS3	—	Ground
2	RFZi	I	RF ripple zero crossing signal input
3	RFRP	O	RF ripple signal output
4	SBAD/RFDC	O	Sub beam addition signal or RF peak detection signal output Not used. (Open)
5	FEi	O	Focus error signal output (Check pin)
6	TEi	O	Tracking error signal output
7	TEZi	I	Tracking error zero crossing signal input
8	AVDD3	—	Power supply (+3.3 V)
9	FOo	O	Focus coil drive signal output
10	TRo	O	Tracking coil drive signal output
11	VREF	I	Reference voltage (+1.65 V) input
12	FMO	O	Sled motor drive signal output
13	DMO	O	Spindle motor drive signal output
14	VSSP3	—	Ground
15	VCOi	I	VCO control voltage input
16	VDDP3	—	Power supply (+3.3 V)
17	VDD1	—	Power supply (+1.5 V)
18	VSS1	—	Ground
19	FGiN	I	FG signal input Not used. (Connected to ground.)
20	IO0 (/HSO)	I	Disc inner position detection signal input
21	IO1 (/UHSO)	O	Not used. (Open)
22	XVSS3	—	Ground
23	XI	I	System clock input (16.9344 MHz)
24	XO	O	System clock output (16.9344 MHz)
25	XVDD3	—	Power supply (+3.3 V)
26	DVSS3	—	Ground
27	RO	O	Analog audio (R-ch) signal output
28	DVDD3	—	Power supply (+3.3 V)
29	DVR	O	Reference voltage (+1.65 V) output
30	LO	O	Analog audio (L-ch) signal output
31	DVSS3	—	Ground
32	VDDT3	—	Power supply (+3.3 V)
33	VSS1	—	Ground
34	VDD1	—	Power supply (+1.5 V)
35	VDDM1	—	Power supply (+1.5 V)
36	SRAMSTB	I	S-RAM standby mode control signal input Fixed at “L” in this set.
37	$\overline{\text{RST}}$	I	Reset signal input from the system controller “L”: reset
38, 39	BUS0, BUS1	I/O	Serial data input/output from the system controller or USB controller
40	BUS2 (SO)	I/O	Serial data input/output from the system controller or USB controller
41	BUS3 (SI)	I/O	Serial data input/output from the system controller or USB controller
42	BUCK (CLK)	I	Serial data transfer clock signal input from the system controller or USB controller
43	$\overline{\text{CCE}}$	I	Chip enable signal input from the system controller or USB controller
44	TEST	I	Setting pin for test mode Normally fixed at “L”
45	IRQ	I	Interrupt request signal input

Pin No.	Pin Name	I/O	Pin Description
46	AoUT3 (PO4)	O	Request signal output to the USB controller Not used. (Open)
47	AoUT2 (PO5)	O	Audio data output to the USB controller
48	PIO0	O	Request signal output to the system controller or USB controller
49	PIO1	O	ST REQ signal output
50	PIO2	O	Not used. (Open)
51	PIO3	I	Gate signal input from the USB controller
52	VSS1	—	Ground
53	VDDT3	—	Power supply (+3.3 V)
54	SBSY	O	Subcode block sync signal output to the system controller
55	SBOK/FOK	O	Not used. (Open)
56	IPF	O	Not used. (Open)
57	SFSY/LOCK	O	Not used. (Open)
58	ZDET	O	Zero detection signal output Not used. (Open)
59	GPIN	I	Not used. (Connected to ground.)
60	MS	I	Microcomputer interface mode selection signal input Fixed at “H” in this set.
61	DOUT (PO6)	O	Digital audio data output Not used in this set. (Open)
62	AOUT1 (PO7)	O	Audio data output Not used in this set. (Open)
63	BCK (PO8)	O	Bit clock signal output to the USB controller
64	LRCK (PO9)	O	L/R sampling clock signal output
65	AIN (PI4)	I	Digital audio data input from the USB controller
66	BCKi (PI5)	I	Bit clock signal input from the USB controller
67	LRCKi (PI6)	I	L/R sampling clock signal input from the USB controller
68	VDD1	—	Power supply (+1.5 V)
69	VSS	—	Ground
70	AWRC	—	Not used. (Open)
71	PVDD3	—	Power supply (+3.3 V)
72	PDO	O	Phase error margin signal between EFM signal and PLCK signal output
73	TMAXS	O	TMAX detection signal output Not used. (Open)
74	TMAX	O	TMAX detection signal output
75	LPFN	I	Inverted signal input from the operation amplifier for PLL loop filter
76	LPFo	O	Signal output from the operation amplifier for PLL loop filter
77	PVREF	I	Reference voltage (+1.65 V) input
78	VCOF	O	VCO filter output
79	PVSS3	—	Ground
80	SLCo	O	EFM slice level output
81	RFi	I	RF signal input
82	RFRPi	I	RF ripple signal input
83	RFEQo	O	EFM slice level output
84	VRo	O	Reference voltage (+1.65 V) output
85	RESiN	O	External resistor connection pin
86	VMDiR	O	Reference voltage (+1.65 V) output for automatic power control circuit
87	TESTR	O	Low-pass filter terminal for RFEQO offset correction
88	AGCi	I	RF signal amplitude adjustment amplification input
89	RFo	O	RF signal generation amplification output
90	RVDD3	—	Power supply (+3.3 V)
91	LDo	O	Laser diode on/off control signal output to the automatic power control circuit “H”: laser diode on

Pin No.	Pin Name	I/O	Pin Description
92	MDi	I	Light amount monitor input from the laser diode of optical pick-up block
93	RVSS3	—	Ground
94	FNi2 (C)	I	Main beam (C) input from the optical pick-up block
95	FNi1 (A)	I	Main beam (A) input from the optical pick-up block
96	FPi2 (D)	I	Main beam (D) input from the optical pick-up block
97	FPi1 (B)	I	Main beam (B) input from the optical pick-up block
98	TPi (F)	I	Sub beam (F) input from the optical pick-up block
99	TNPC	O	External capacitor connection pin
100	TNi (E)	I	Sub beam (E) input from the optical pick-up block

IC801 MB90F045PF-G-9055-SPE1 (SYSTEM CONTROL) (MAIN BOARD (1/2))

Pin No.	Pin Name	I/O	Pin Description
1	I-SIMUKE1	I	Destination setting pin
2	I-SIMUKE2	I	Destination setting pin
3	I-SIMUKE3	I	Destination setting pin
4 to 6	NC	—	Not used. (Open)
7	Z-BUS0	I/O	Serial bus data bit 0 input/output
8	Z-BUS1	I/O	Serial bus data bit 1 input/output
9	Z-BUS2	I/O	Serial bus data bit 2 input/output
10	Z-BUS3	I/O	Serial bus data bit 3 input/output
11	VSS	—	Ground
12	$\overline{\text{O-DEC-BUS-SEL}}$	O	Bus control switch signal output “H”:USB, “L”:CD
13	O-TU-ON	O	Tuner on/off signal output
14	$\overline{\text{O-TU-MUTE}}$	O	Tuner mute control signal output
15	I-TU-COUNT	I	Tuner PLL IF count input
16	O-TU-CLK	O	Tuner PLL clock signal output
17	O-TU-DATA	O	Tuner PLL data signal output
18	O-TU-CE	O	Tuner PLL chip enable signal output
19	O-LCD-SI	O	LCD driver control serial data output
20	O-LCD-SCK	O	LCD driver control serial clock output
21	NC	—	Not used. (Open)
22	NC	—	Not used. (Open)
23	VGGS	—	Power supply (+3.3V)
24	O-USB-CTS	I	Clear to send signal input from USB controller
25	I-USB-RTS	O	Ready to send signal output to USB controller
26	O-USB-RST	O	Reset signal output to the USB controller
27	USB-RXD(SI)	I	Serial data input from the USB controller
28	USB-TXD(SO)	O	Serial data output to the USB controller
29	NC(SC)	—	Not used. (Open)
30	$\overline{\text{O-LCD-INH}}$	O	LCD drive inhibit signal output
31	$\overline{\text{O-LCD-RST}}$	O	LCD drive reset signal output
32	$\overline{\text{O-LCD-CS}}$	O	LCD drive chip select signal output
33	EPROM-SCL	O	EPROM serial clock signal output
34	EPROM-SDA	I/O	EPROM serial data signal input/output
35	AVCC	—	A/D converter power supply (+3.3V)
36	AVRH	—	A/D converter external reference voltage supply
37	AVSS	—	A/D converter Ground
38	I-KEY0	I	Key signal input 0
39	I-KEY1	I	Key signal input 1
40	I-KEY2	I	Key signal input 2
41	I-KEY3	I	Key signal input 3
42	VSS	—	Ground
43	I-REG3.3V-CHK	I	REG 3.3V on/off check input
44	I-REG6.0V-CHK	I	Electric volume power supply voltage check input
45	I-VH(REG9.0V-CHK)	I	Battery voltage check input
46	I-VM	I	Battery VM voltage check input
47	I-WAKE UP(INT0)	I	Key wake up trigger signal input
48	(INT1)	—	Not used. (Open)
49	(MD0)	I	Operation mode setting pin (Pull up)
50	(MD1)	I	Operation mode setting pin (Pull up)
51	(MD2)	I	Operation mode setting pin (Pull down)

Pin No.	Pin Name	I/O	Pin Description
52	NC	—	Not used. (Open)
53	I-LID-OPEN	I	CD door detect signal input
54	I-AC-CHK	I	AC IN power supply check signal input
55	NC	—	Not used. (Open)
56	NC	—	Not used. (Open)
57	I-Z-SBSY	I	CD sub code sync signal input
58	O-A-MUTE	O	Audio mute control signal output
59	O-V-DATA	O	Electric volume serial data output
60	O-V-CLOCK	O	Electric volume serial clock signal output
61	NC	—	Not used. (Open)
62	O-B/L-LED	O	LCD backlight control signal output
63	NC	—	Not used. (Open)
64	I-RMC	I	Remote control signal input
65	NC	—	Not used. (Open)
66	O-CD-ON	O	CD power control signal output
67	O-TAPE-ON	O	Tape power control signal output
68	NC	—	Not used. (Open)
69	NC	—	Not used. (Open)
70	I-REC-IN	I	Tape recording mode detect signal input “H”:Tape REC
71	O-ISS1	O	REC bias frequency control signal output
72	O-ISS2	O	REC bias frequency control signal output
73	I-TAPE PLAY	I	Test mode detect signal input
74	O-USB-ON	O	USB power control signal output
75	O-POWER	O	Main power control signal output
76	O-LOAD	O	Dummy load control signal output for battery check
77	$\overline{\text{RESET}}$	I	system reset signal input
78	NC	—	Not used. (Open)
79	XIA	O	Not used. (Open)
80	XOA	I	Not used. (connected to ground)
81	VSS	—	Ground
82	XO	I	Main clock signal input (5.53kHz)
83	XI	O	Main clock signal output (5.53kHz)
84	VCC3	—	Power supply (+3.3 V)
85	O-FM/AM-SHIFT	O	Radio main clock shift control signal output
86	O-FM/AM-SHIFT	O	Radio main clock shift control signal output
87 to 95	NC	—	Not used. (Open)
96	O-Z-RST	O	Reset control signal output “L”: Reset
97	O-Z-BUCK	O	Bus clock signal output
98	O-Z-CCE	O	Chip select signal output
99	O-M-MUTE	O	Motor drive muting signal output
100	I-Z-MP3-IREQ	I	MP3 decoder request signal input

IC901 TMP92CD28AFG-2CB4 (USB CONTROLLER) (USB BOARD)

Pin No.	Pin Name	I/O	Pin Description
1	RESET	I	Reset signal input from the system controller "L": reset
2	PC0/INT0	I	Ready to send signal input from the system controller
3	PC1/INT1	O	Not used. Connected to ground.
4	PC2/INT2/TB1IN0	O	Not used. Connected to ground.
5	PC3/INT3	I	Function selection signal input Fixed at "L" in this set.
6	DVCC3B	—	Power supply (+3.3 V)
7	PC6/XT1	O	Not used. (Open)
8	PC7/XT2	O	Not used. (Open)
9	$\overline{\text{PWE}}$	O	Not used. (Open)
10	DVSS1B	—	Ground
11	DVCC1B	—	Reference voltage input
12	RVOUT1	O	Reference voltage output
13, 14	RVIN	I	Reference voltage (+3.3 V) input
15	RVOUT2	O	Reference voltage output
16	DVCC1A	—	Reference voltage input
17	DVSS1A	—	Ground
18 to 25	P00/D0 to P07/D7	I/O	Two-way data bus with the S-RAM
26	DVSS	—	Ground
27	DVCC3A	—	Power supply (+3.3 V)
28 to 35	P10/D8 to P17/D15	I/O	Two-way data bus with the S-RAM
36	P40/A0	O	Address signal output Not used in this set. (Open)
37 to 43	P41/A1 to P47/A7	O	Address signal output to the S-RAM
44	DVSS	—	Ground
45	DVCC3A	—	Power supply (+3.3 V)
46 to 54	P50/A8 to P60/A16	O	Address signal output to the S-RAM
55 to 58	P61/A17 to P64/A20	O	Serial data output to the CD-MP3 processor
59	P65/A21	O	Serial data transfer clock signal output to the CD-MP3 processor
60	P66/A22	O	Chip enable signal output to the CD-MP3 processor
61	P67/A23	O	Not used. (Open)
62	DVSS	—	Ground
63	DVCC3A	—	Power supply (+3.3 V)
64	P70/$\overline{\text{RD}}$	O	Output enable signal output to the S-RAM
65	P71/$\overline{\text{SRWR}}$	O	Write enable signal output to the S-RAM
66	P72/$\overline{\text{SRLLB}}$	O	Lower-byte control signal output to the S-RAM
67	P73/$\overline{\text{SRLUB}}$	O	Upper-byte control signal output to the S-RAM
68	P74/TA0IN	O	Not used. (Open)
69	P80/$\overline{\text{CS0}}$/TA1OUT ($\overline{\text{BOOT}}$)	I	Boot mode selection signal input "L": boot mode
70	P82/$\overline{\text{CS2}}$	I	Chip select signal output to the S-RAM
71	P83/$\overline{\text{CS3}}$/$\overline{\text{WAIT}}$/TA5OUT	O	L/R sampling clock signal output to the CD-MP3 processor
72	AM1	I	Function mode selection signal input Fixed at "H" in this set.
73	X2	O	System clock output (9 MHz)
74	DVSS	—	Ground
75	X1	I	System clock input (9 MHz)
76	DVCC3A	—	Power supply (+3.3 V)
77	P75/$\overline{\text{USBOC}}$	I	Over current detection signal input
78	P76/USBPON	O	USB VBUS power on/off control signal output "H": power on
79	D+	I/O	Two-way data (positive) bus with the USB connector
80	D–	I/O	Two-way data (negative) bus with the USB connector
81	AM0	I	Function mode selection signal input Fixed at "H" in this set.

Pin No.	Pin Name	I/O	Pin Description
82	P77/X1USB	O	Not used. (Open)
83	DVSS	—	Ground
84	PF0/TXD0	O	Clear to send signal output to the system controller
85	PF1/RXD0	O	Serial data signal output
86	PF2/SCLK0/CTS0/ CLK/TB0OUT0	O	Serial data transfer clock signal output
87	PF3/TXD1/SPDO	O	Serial data signal output to the system controller
88	PF4/RXD1/SPDI	I	Serial data signal input from the system controller
89	PF5/SCLK1/CTS1/SPCLK	O	Not used in this set. (Open)
90	PN1/SDA0/TA3OUT/SO0	I/O	Two-way EEPROM IIC data bus Not used in this set.
91	PN2/SCL0/TA2IN/SI0	I/O	Two-way EEPROM IIC clock bus Not used in this set.
92	PN3/HCLK	O	Bit clock signal output to the CD-MP3 processor
93	PN4/HSSO/SDA1	O	Audio data output to the CD-MP3 processor
94	PN5/HSSI/SCL1	O	Gate signal output to the CD-MP3 processor
95	DVCC3A	—	Power supply (+3.3 V)
96	PG3	I	Request signal input from the CD-MP3 processor
97	PG2	I	Request signal input from the CD-MP3 processor
98, 99	PG1, PG0	I	Function selection signal input Fixed at “H” in this set.
100	DVSS	—	Ground

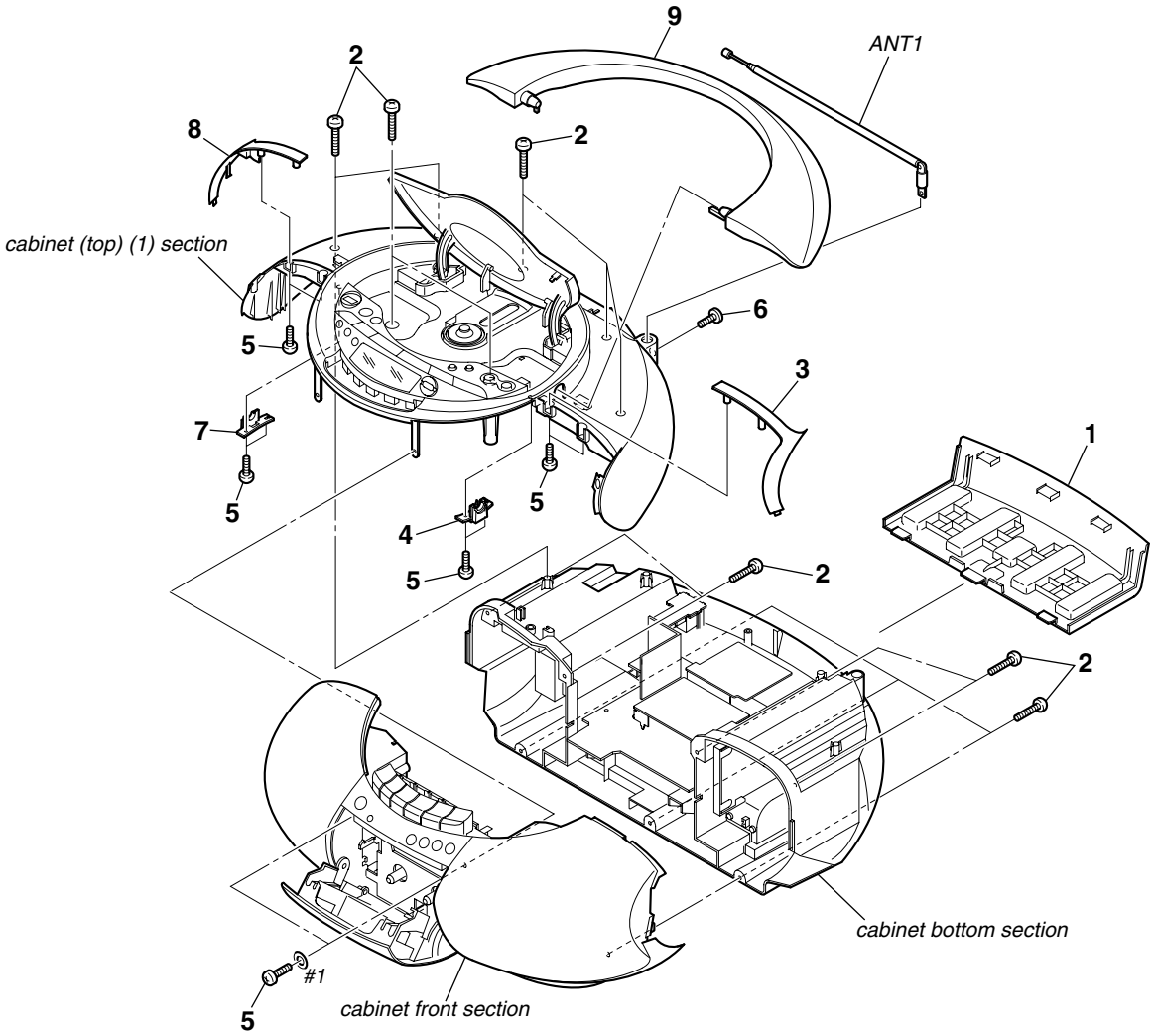
SECTION 7
EXPLODED VIEWS

NOTE:

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Accessories are given in the last of electrical parts list.
- Color Indication of Appearance Parts Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ Parts of Color ↑ Cabinet's Color
- Abbreviation
  CET : East European model
  E41 : AC 230V area in E model
  IT : Italian model
  MX : Mexican model
  RU : Russian model
  SP : Singapore model

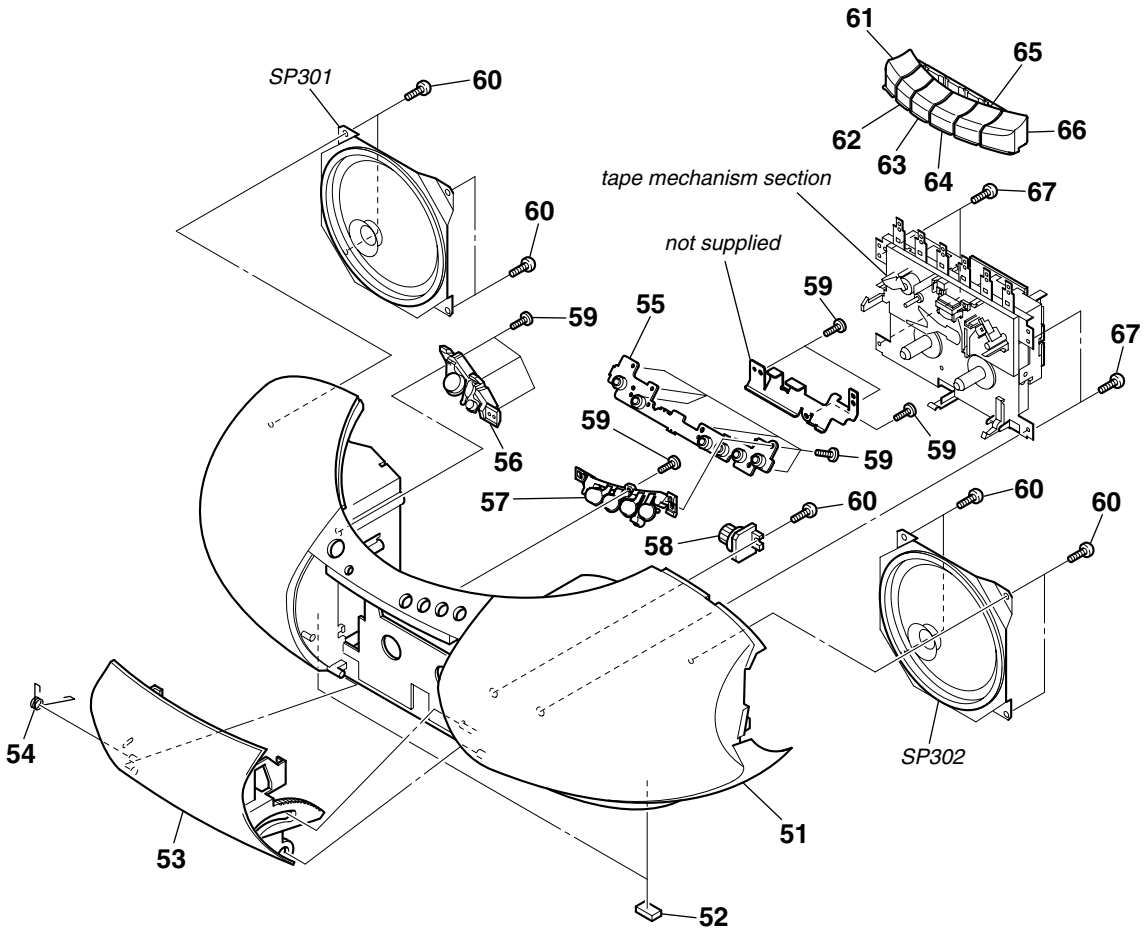
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

7-1. CABINET SECTION



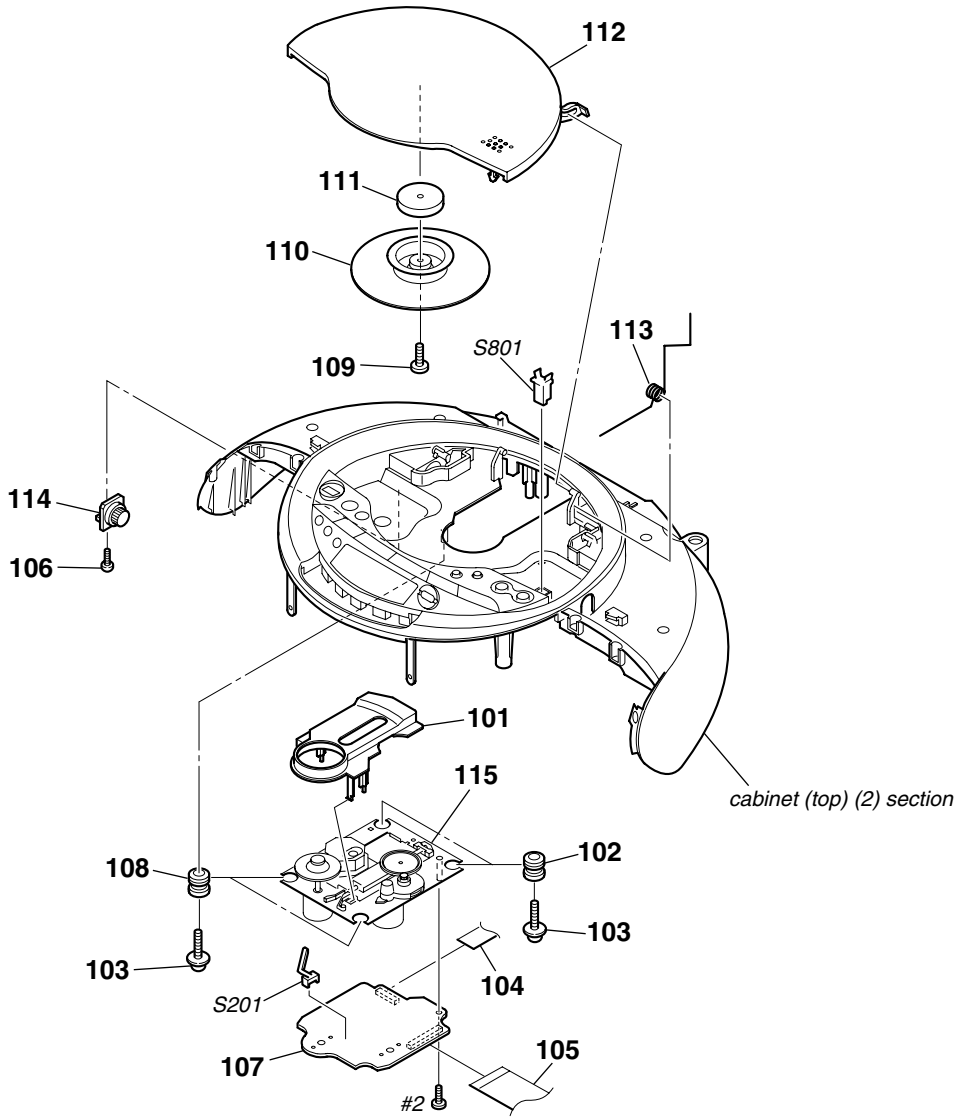
Ref. No.	Part No.	Description	Remark
1	3-216-200-01	LID, BATTERY CASE	
2	3-254-140-11	SCREW (B2.6), (+) BV TAPPING	
3	3-216-214-01	COVER (HANDLE R)	
4	2-547-159-21	HOLDER (HANDLE) (R)	
5	3-254-151-01	SCREW (B2.6), (+) P TAPPING	
6	3-252-833-01	SCREW (M3), (+) P	
7	2-547-158-21	HOLDER (HANDLE) (L)	
8	3-216-213-01	COVER (HANDLE L)	
9	3-216-197-01	HANDLE	
ANT1	1-754-376-11	ANTENNA, TELESCOPIC (FM)	
#1	7-688-002-11	W 2.6, MIDDLE	

7-2. CABINET (FRONT) SECTION



Ref. No.	Part No.	Description	Remark
51	X-2179-687-1	CABINET (FRONT) SUB ASSY (E41,MX,SP)	
51	X-2179-839-1	CABINET (FRONT) SUB ASSY (CET,IT,RU)	
52	3-040-916-01	FOOT (FRONT), RUBBER	
53	3-216-199-01	HOLDER (CASSETTE)	
54	2-547-170-01	SPRING (CASSETTE)	
55	A-1317-468-A	POWER KEY BOARD, COMPLETE	
56	3-216-204-01	BUTTON (POWER)	
57	3-216-205-01	BUTTON (FUNCTION)	
58	3-047-468-11	DAMPER	
59	3-254-070-01	SCREW	
60	3-252-827-01	SCREW (B2.6), (+) BV TAPPING	
61	3-216-207-01	BUTTON (PAUSE)	
62	3-216-208-01	BUTTON (S/E)	
63	3-216-209-01	BUTTON (FF)	
64	3-216-210-01	BUTTON (REW)	
65	3-216-211-01	BUTTON (PLAY)	
66	3-216-212-01	BUTTON (REC)	
67	3-254-151-01	SCREW (B2.6), (+) P TAPPING	
SP301	1-825-690-11	SPEAKER (DIA. 10cm) (L-CH)	
SP302	1-825-690-11	SPEAKER (DIA. 10cm) (R-CH)	

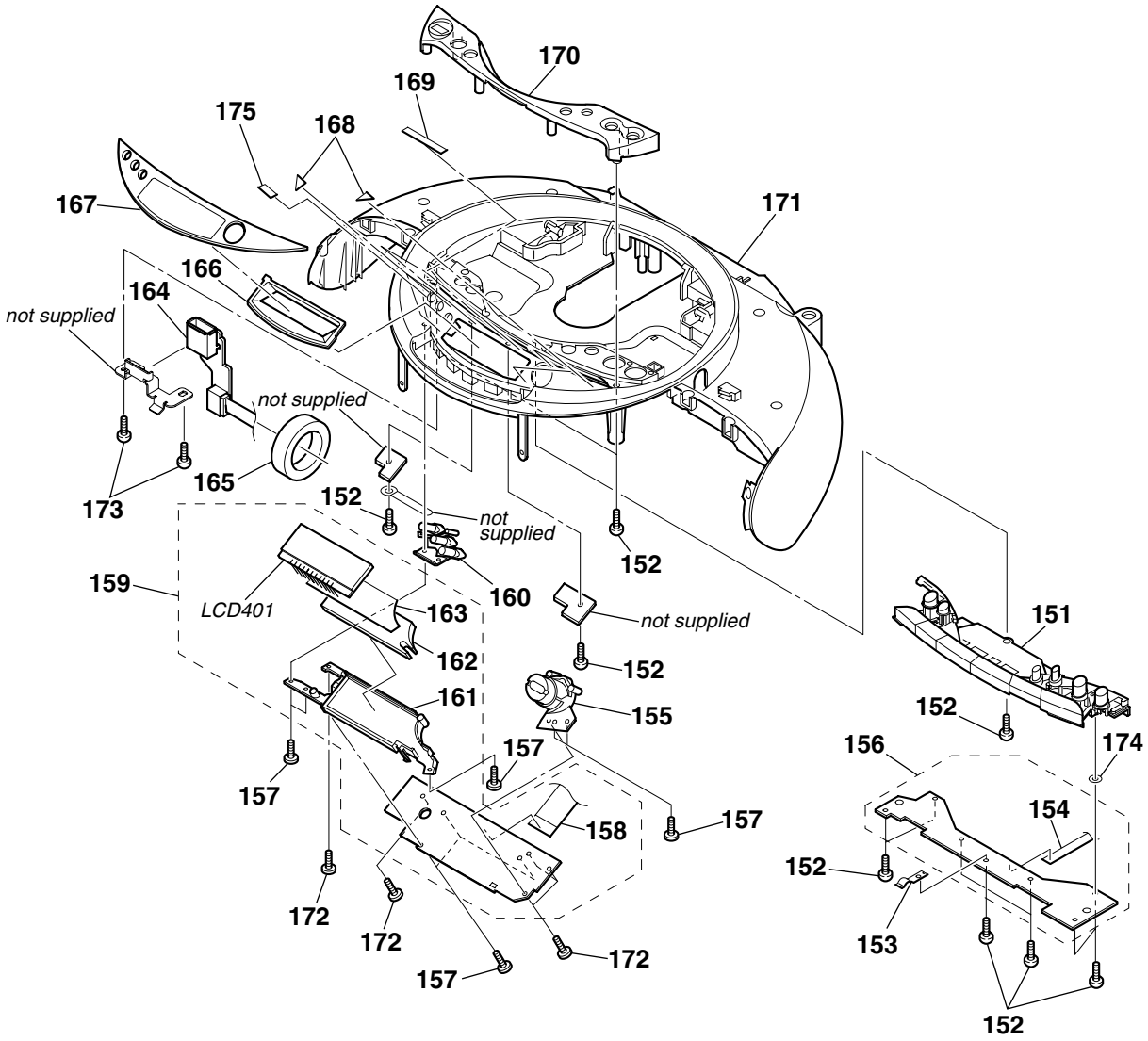
7-3. CABINET (TOP) (1) SECTION



Ref. No.	Part No.	Description	Remark
101	3-923-736-01	COVER, CD	
102	3-931-379-21	RUBBER, VIBRATION PROOF (RED)	
103	3-252-828-01	SCREW (B2.6), (+) PWH TAPPING	
104	1-832-404-21	CABLE, FLEXIBLE FLAT (16 CORE)	
105	1-832-644-21	CABLE, FLEXIBLE FLAT (27 CORE)	
106	3-252-827-01	SCREW (B2.6), (+) BV TAPPING	
107	A-1236-250-A	BD91 BOARD, COMPLETE	
108	3-931-379-31	RUBBER, VIBRATION PROOF (GREEN)	
109	3-253-143-01	SCREW (B2.6), (+) P TAPPING	
110	3-019-395-01	PLATE, CHUCKING	

Ref. No.	Part No.	Description	Remark
111	1-452-899-11	MAGNET	
112	3-216-198-01	LID, CD	
113	2-547-171-01	SPRING (CD)	
114	3-047-468-11	DAMPER	
⚠115	8-820-126-02	OPTICAL PICK-UP (KSM-213CDP/C2NP)	
S201	1-771-853-11	SWITCH, DETECTION (LIMIT)	
S801	1-692-960-11	SWITCH, PUSH (1 KEY) (⏏ PUSH OPEN/CLOSE)	
#2	7-685-853-04	SCREW +BVTT 2X6 (S)	

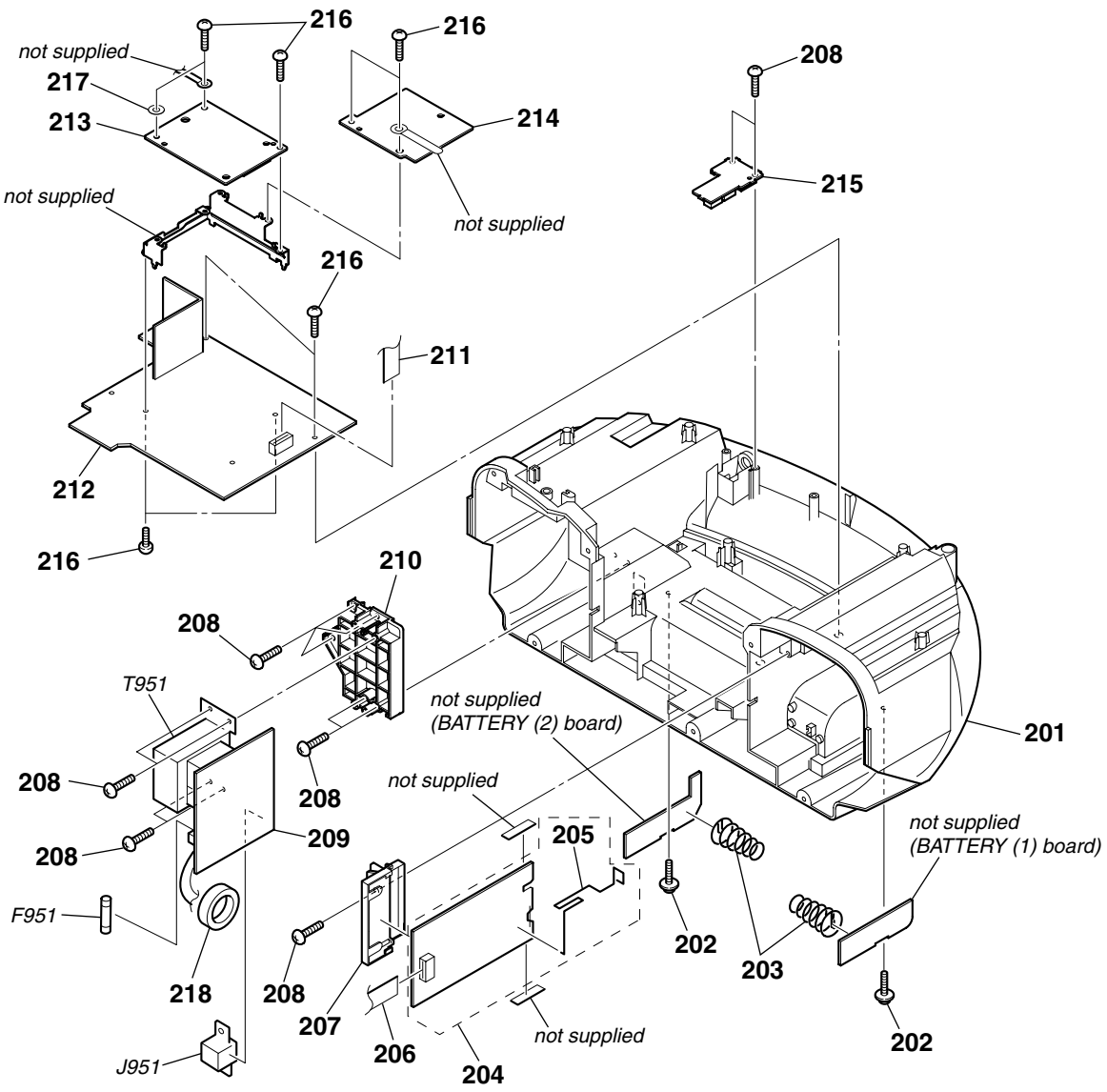
7-4. CABINET (TOP) (2) SECTION



Ref. No.	Part No.	Description	Remark
151	A-1317-472-A	BUTTON (CD) ASSY	
152	3-254-151-01	SCREW (B2.6), (+) P TAPPING	
153	2-594-014-01	PLATE, SUPPORT	
154	1-834-579-21	CABLE, FLEXIBLE FLAT (5 CORE)	
155	X-2179-688-1	BUTTON (FLDR) SUB ASSY	
156	A-1317-473-A	CD KEY BOARD, COMPLETE	
157	3-254-081-01	SCREW	
158	1-831-999-21	CABLE, FLEXIBLE FLAT (15 CORE)	
159	A-1317-478-A	LCD BOARD, COMPLETE	
160	3-216-203-01	BUTTON (MODE)	
161	2-547-164-01	HOLDER (LCD)	
162	2-547-143-01	PLATE, LIGHT GUIDE	
163	2-584-370-01	SHEET, LCD	

Ref. No.	Part No.	Description	Remark
164	A-1317-475-A	USB CONNECT BOARD, COMPLETE	
165	1-500-868-11	CORE, FERRITE	
166	3-216-216-01	ESCUTCHEON (LCD)	
167	3-216-215-01	WINDOW (LCD)	
168	2-547-172-01	TAPE (LCD) (WINDOW)	
169	3-250-079-01	TAPE (LCD WINDOW) (B)	
170	3-216-196-01	COVER (TOP)	
171	3-216-193-01	CABINET (TOP)	
172	3-254-070-01	SCREW	
173	3-252-827-01	SCREW (B2.6), (+) BV TAPPING	
174	3-255-102-01	WASHER, PETP	
175	3-831-441-11	CUSHION (B)	
LCD401	1-802-533-11	DISPLAY PANEL, LIQUID CRYSTAL	

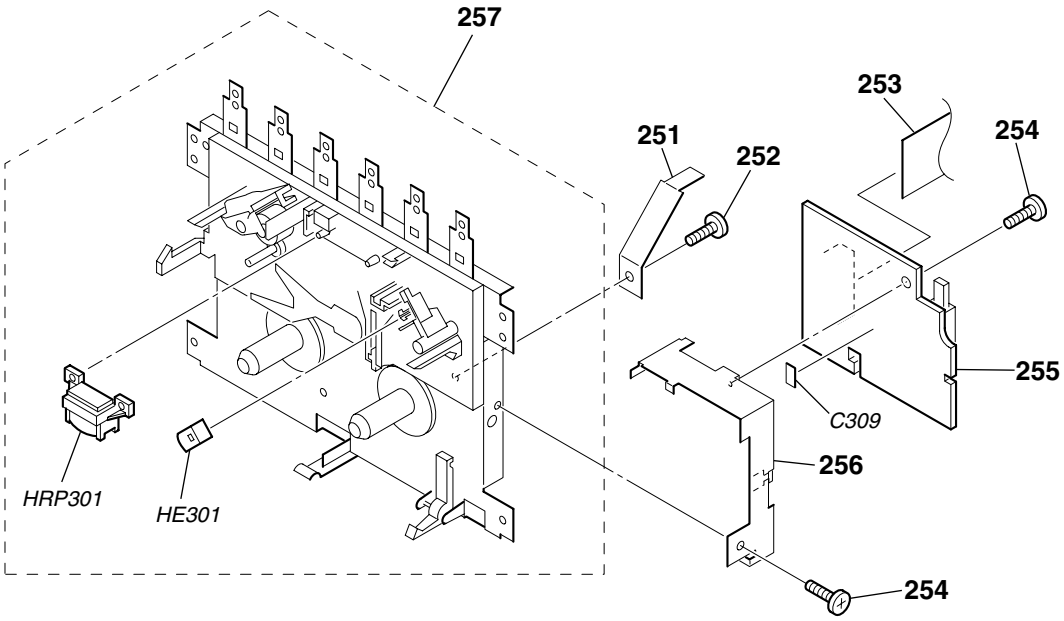
7-5. CABINET (BOTTOM) SECTION



Ref. No.	Part No.	Description	Remark
201	3-216-195-01	CABINET (BOTTOM) (MX)	
201	3-216-195-11	CABINET (BOTTOM) (EXCEPT MX)	
202	3-252-828-01	SCREW (B2.6), (+) PWH TAPPING	
203	3-240-561-02	TERMINAL (–), BATTERY	
204	A-1098-549-A	TUNER BOARD, COMPLETE (MX)	
204	A-1098-611-A	TUNER BOARD, COMPLETE (EXCEPT MX)	
205	2-547-169-01	TERMINAL, ANTENNA	
206	1-832-824-21	CABLE, FLEXIBLE FLAT (11 CORE)	
207	3-249-551-01	HOLDER (PWB TU)	
208	3-252-827-01	SCREW (B2.6), (+) BV TAPPING	
209	A-1317-459-A	POWER BOARD, COMPLETE	
210	3-216-217-01	HOLDER (TRANS) (MX)	
210	3-216-217-11	HOLDER (TRANS) (EXCEPT MX)	
211	1-832-611-21	CABLE, FLEXIBLE FLAT (21 CORE)	
212	A-1317-462-A	MAIN BOARD, COMPLETE (MX)	

Ref. No.	Part No.	Description	Remark
212	A-1319-418-A	MAIN BOARD, COMPLETE (CET,IT,SP)	
212	A-1319-444-A	MAIN BOARD, COMPLETE (E41)	
212	A-1319-450-A	MAIN BOARD, COMPLETE (RU)	
213	A-1317-463-A	USB BOARD, COMPLETE	
214	A-1317-465-A	VOL BOARD, COMPLETE	
215	A-1317-460-A	HEADPHONE BOARD, COMPLETE	
216	3-254-151-01	SCREW (B2.6), (+) P TAPPING	
217	3-232-994-01	WASHER	
218	1-500-868-11	CORE, FERRITE	
⚠F951	1-532-465-33	FUSE (3.15A/250V)	
⚠J951	1-526-838-11	INLET, AC 2P (~ AC IN) (EXCEPT MX)	
⚠J951	1-540-009-11	INLET, AC (~ AC IN) (MX)	
⚠T951	1-445-291-11	TRANSFORMER, POWER (MX)	
⚠T951	1-445-292-11	TRANSFORMER, POWER (EXCEPT MX)	

7-6. TAPE MECHANISM SECTION (MF-S350V)



Ref. No.	Part No.	Description	Remark
251	3-237-718-01	LEVER, REC	
252	3-254-022-01	SCREW	
253	1-832-833-21	CABLE, FLEXIBLE FLAT (13 CORE)	
254	3-254-029-01	SCREW	
255	A-1108-791-A	TC BOARD, COMPLETE	
256	3-252-614-01	CHASSIS, TC	
257	A-1211-775-A	MF-S350V//C	
C309	1-162-923-11	CERAMIC CHIP 47PF 5% 50V	
HE301	1-500-813-11	HEAD, ERASE (ERASE)	
HRP301	3-266-053-01	HEAD, RP (REC/PB)	

SECTION 8
ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service.
  Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u : μ, for example:
  uA.. : μA.. uPA.. : μPA..
  uPB.. : μPB.. uPC.. : μPC.. uPD.. : μPD..
- CAPACITORS
  uF : μF
- COILS
  uH : μH

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board.

- Abbreviation
  CET : East European model
  E41 : AC 230V area in E model
  IT : Italian model
  MX : Mexican model
  RU : Russian model
  SP : Singapore model

Ref. No.	Part No.	Description			Remark
		BATTERY (1) BOARD			
		**********			
	3-240-561-02	TERMINAL (–), BATTERY			
**********					
		BATTERY (2) BOARD			
		**********			
	3-240-561-02	TERMINAL (–), BATTERY			
		< CONNECTOR >			
CN954	1-815-550-11	PIN, CONNECTOR (PWB) 2P			
**********					
	A-1236-250-A	BD91 BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C100	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C101	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C102	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C103	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C104	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C105	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C106	1-128-995-21	ELECT CHIP	100uF	20%	10V
C107	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C108	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C109	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C110	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C112	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C113	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C115	1-124-778-00	ELECT CHIP	22uF	20%	6.3V
C116	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C117	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C118	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C119	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C120	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C122	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C123	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C124	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C125	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C126	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C127	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C128	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V
C130	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V
C132	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C133	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C136	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C137	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C138	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C139	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C140	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C141	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C142	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C143	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C144	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C145	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C146	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C147	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C148	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C149	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C150	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C151	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C152	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C153	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C201	1-128-995-21	ELECT CHIP	100uF	20%	10V
C202	1-128-995-21	ELECT CHIP	100uF	20%	10V
C204	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C205	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C206	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C207	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C301	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C302	1-137-710-11	CERAMIC CHIP	10uF	20%	6.3V
C303	1-137-710-11	CERAMIC CHIP	10uF	20%	6.3V
C306	1-128-995-21	ELECT CHIP	100uF	20%	10V
C307	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C309	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C401	1-128-394-11	ELECT CHIP	220uF	20%	10V
C403	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C404	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C405	1-164-360-11	CERAMIC CHIP	0.1uF		16V
		< CONNECTOR >			
CN202	1-784-835-51	CONNECTOR, FFC (LIF(NON-ZIF)) 27P			
CN301	1-770-425-51	CONNECTOR, FFC/FPC 16P			
		< IC >			
IC101	6-710-827-01	IC TC94A70FG-008(S,D)			
IC201	6-710-808-01	IC TK63115SCL-G@GT			

Ref. No.	Part No.	Description			Remark
IC401	6-710-637-01	IC BA5826SFP-E2			
		< TRANSISTOR >			
Q301	6-551-120-01	TRANSISTOR 2SA2119K			
		< RESISTOR >			
R101	1-216-813-11	METAL CHIP	220	5%	1/10W
R102	1-216-833-11	METAL CHIP	10K	5%	1/10W
R104	1-216-295-11	SHORT CHIP	0		
R105	1-216-857-11	METAL CHIP	1M	5%	1/10W
R106	1-216-821-11	METAL CHIP	1K	5%	1/10W
R108	1-500-445-21	FERRITE, EMI (SMD) (2012)			
R109	1-216-809-11	METAL CHIP	100	5%	1/10W
R110	1-216-833-11	METAL CHIP	10K	5%	1/10W
R111	1-216-809-11	METAL CHIP	100	5%	1/10W
R112	1-216-809-11	METAL CHIP	100	5%	1/10W
R114	1-216-833-11	METAL CHIP	10K	5%	1/10W
R118	1-216-845-11	METAL CHIP	100K	5%	1/10W
R119	1-216-864-11	SHORT CHIP	0		
R121	1-216-809-11	METAL CHIP	100	5%	1/10W
R128	1-216-853-11	METAL CHIP	470K	5%	1/10W
R129	1-216-821-11	METAL CHIP	1K	5%	1/10W
R130	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R134	1-216-857-11	METAL CHIP	1M	5%	1/10W
R135	1-216-853-11	METAL CHIP	470K	5%	1/10W
R136	1-216-837-11	METAL CHIP	22K	5%	1/10W
R139	1-216-841-11	METAL CHIP	47K	5%	1/10W
R140	1-216-864-11	SHORT CHIP	0		
R142	1-216-837-11	METAL CHIP	22K	5%	1/10W
R143	1-216-841-11	METAL CHIP	47K	5%	1/10W
R144	1-216-837-11	METAL CHIP	22K	5%	1/10W
R145	1-216-864-11	SHORT CHIP	0		
R146	1-216-864-11	SHORT CHIP	0		
R147	1-216-864-11	SHORT CHIP	0		
R148	1-216-864-11	SHORT CHIP	0		
R149	1-216-864-11	SHORT CHIP	0		
R150	1-216-864-11	SHORT CHIP	0		
R151	1-216-864-11	SHORT CHIP	0		
R153	1-216-857-11	METAL CHIP	1M	5%	1/10W
R154	1-216-857-11	METAL CHIP	1M	5%	1/10W
R155	1-216-805-11	METAL CHIP	47	5%	1/10W
R156	1-216-809-11	METAL CHIP	100	5%	1/10W
R157	1-216-809-11	METAL CHIP	100	5%	1/10W
R201	1-216-295-11	SHORT CHIP	0		
R202	1-216-295-11	SHORT CHIP	0		
R203	1-216-809-11	METAL CHIP	100	5%	1/10W
R204	1-216-809-11	METAL CHIP	100	5%	1/10W
R205	1-216-809-11	METAL CHIP	100	5%	1/10W
R206	1-216-809-11	METAL CHIP	100	5%	1/10W
R207	1-216-809-11	METAL CHIP	100	5%	1/10W
R208	1-216-809-11	METAL CHIP	100	5%	1/10W
R209	1-216-809-11	METAL CHIP	100	5%	1/10W
R210	1-216-809-11	METAL CHIP	100	5%	1/10W
R211	1-216-809-11	METAL CHIP	100	5%	1/10W
R212	1-216-809-11	METAL CHIP	100	5%	1/10W
R213	1-216-809-11	METAL CHIP	100	5%	1/10W
R214	1-216-809-11	METAL CHIP	100	5%	1/10W
R216	1-216-809-11	METAL CHIP	100	5%	1/10W
R218	1-216-845-11	METAL CHIP	100K	5%	1/10W
R219	1-216-845-11	METAL CHIP	100K	5%	1/10W
R220	1-216-845-11	METAL CHIP	100K	5%	1/10W
R221	1-216-845-11	METAL CHIP	100K	5%	1/10W
R222	1-216-845-11	METAL CHIP	100K	5%	1/10W
R223	1-216-845-11	METAL CHIP	100K	5%	1/10W
R224	1-216-809-11	METAL CHIP	100	5%	1/10W
R301	1-216-845-11	METAL CHIP	100K	5%	1/10W
R302	1-216-864-11	SHORT CHIP	0		
R303	1-216-789-11	METAL CHIP	2.2	5%	1/10W
R304	1-216-789-11	METAL CHIP	2.2	5%	1/10W
R402	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R405	1-216-833-11	METAL CHIP	10K	5%	1/10W
R408	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R414	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R415	1-216-841-11	METAL CHIP	47K	5%	1/10W
		< VIBRATOR >			
X102	1-795-101-21	VIBRATOR, CERAMIC (16.934MHz)			
**********					
	A-1317-473-A	CD KEY BOARD, COMPLETE			
		**********			
	1-834-579-21	CABLE, FLEXIBLE FLAT (5 CORE) (CN401)			
		< CAPACITOR >			
C401	1-135-834-11	CERAMIC CHIP	2.2uF		6.3V
		< IC >			
IC401	6-600-108-01	IC RPM7140 (IR)			
		< RESISTOR >			
R401	1-216-813-11	METAL CHIP	220	5%	1/10W
R402	1-216-817-11	METAL CHIP	470	5%	1/10W
R403	1-216-821-11	METAL CHIP	1K	5%	1/10W
R404	1-216-821-11	METAL CHIP	1K	5%	1/10W
R405	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R406	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R407	1-216-821-11	METAL CHIP	1K	5%	1/10W
R408	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R409	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R410	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R411	1-216-833-11	METAL CHIP	10K	5%	1/10W
R412	1-216-813-11	METAL CHIP	220	5%	1/10W
R413	1-216-817-11	METAL CHIP	470	5%	1/10W
R414	1-216-821-11	METAL CHIP	1K	5%	1/10W
R415	1-216-821-11	METAL CHIP	1K	5%	1/10W
R416	1-216-841-11	METAL CHIP	47K	5%	1/10W
R417	1-216-845-11	METAL CHIP	100K	5%	1/10W
R505	1-216-809-11	METAL CHIP	100	5%	1/10W
		< SWITCH >			
S401	1-786-726-11	SWITCH, TACTILE (CD-USB SYNC/REC1)			
S402	1-786-726-11	SWITCH, TACTILE (SOUND)			
S403	1-786-726-11	SWITCH, TACTILE (TUNE –/◄◄)			
S404	1-786-726-11	SWITCH, TACTILE (TUNE +/►►)			

CFD-RS60CP

CD KEY **HEADPHONE** **LCD**

Ref. No.	Part No.	Description			Remark
S405	1-786-726-11	SWITCH, TACTILE (PRESET –/I◀◀)			
S406	1-786-726-11	SWITCH, TACTILE (PRESET +/▶▶I)			
S407	1-786-726-11	SWITCH, TACTILE (▶II)			
S408	1-786-726-11	SWITCH, TACTILE (■)			
S409	1-786-726-11	SWITCH, TACTILE (ERASE)			
S410	1-786-726-11	SWITCH, TACTILE (VOLUME +)			
S411	1-786-726-11	SWITCH, TACTILE (VOLUME –)			
S412	1-786-726-11	SWITCH, TACTILE (MEGABASS)			
**********					
	A-1317-460-A	HEADPHONE BOARD, COMPLETE			
		**********			
		< CONNECTOR >			
* CN371	1-815-552-21	PIN, CONNECTOR (PWB) 4P			
CN372	1-815-552-11	PIN, CONNECTOR (PWB) 4P			
		< JACK >			
J371	1-815-325-11	JACK (🎧)			
		< COIL >			
L171	1-410-509-11	INDUCTOR	10uH		
L271	1-410-509-11	INDUCTOR	10uH		
		< RESISTOR >			
R171	1-216-809-11	METAL CHIP	100	5%	1/10W
R271	1-216-809-11	METAL CHIP	100	5%	1/10W
**********					
	A-1317-478-A	LCD BOARD, COMPLETE			
		**********			
	1-831-999-21	CABLE, FLEXIBLE FLAT (15 CORE) (CN407)			
	2-547-143-01	PLATE, LIGHT GUIDE			
	2-547-164-01	HOLDER (LCD)			
	2-584-370-01	SHEET, LCD			
		< CAPACITOR >			
C407	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C408	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
		< CONNECTOR >			
CN402	1-770-514-31	CONNECTOR, FFC/FPC 5P			
		< DIODE >			
D401	6-501-437-01	DIODE SLI-343YC3F (LCD BACK LIGHT)			
D403	8-719-059-97	LED L-34HD (OPR/BATT)			
		< IC >			
IC402	6-709-360-01	IC NJU6533FA2			
		< COIL >			
L401	1-410-509-11	INDUCTOR	10uH		
		< LIQUID CRYSTAL DISPLAY >			
LCD401	1-802-533-11	DISPLAY PANEL, LIQUID CRYSTAL			

Ref. No.	Part No.	Description			Remark
		< RESISTOR >			
R425	1-216-833-11	METAL CHIP	10K	5%	1/10W
R426	1-216-833-11	METAL CHIP	10K	5%	1/10W
R427	1-216-833-11	METAL CHIP	10K	5%	1/10W
R428	1-216-833-11	METAL CHIP	10K	5%	1/10W
R429	1-216-833-11	METAL CHIP	10K	5%	1/10W
R430	1-216-833-11	METAL CHIP	10K	5%	1/10W
R431	1-216-833-11	METAL CHIP	10K	5%	1/10W
R432	1-216-833-11	METAL CHIP	10K	5%	1/10W
R433	1-216-833-11	METAL CHIP	10K	5%	1/10W
R434	1-216-833-11	METAL CHIP	10K	5%	1/10W
R435	1-216-833-11	METAL CHIP	10K	5%	1/10W
R436	1-216-833-11	METAL CHIP	10K	5%	1/10W
R437	1-216-833-11	METAL CHIP	10K	5%	1/10W
R438	1-216-833-11	METAL CHIP	10K	5%	1/10W
R439	1-216-833-11	METAL CHIP	10K	5%	1/10W
R440	1-216-833-11	METAL CHIP	10K	5%	1/10W
R441	1-216-833-11	METAL CHIP	10K	5%	1/10W
R442	1-216-833-11	METAL CHIP	10K	5%	1/10W
R443	1-216-833-11	METAL CHIP	10K	5%	1/10W
R444	1-216-833-11	METAL CHIP	10K	5%	1/10W
R445	1-216-833-11	METAL CHIP	10K	5%	1/10W
R446	1-216-833-11	METAL CHIP	10K	5%	1/10W
R447	1-216-833-11	METAL CHIP	10K	5%	1/10W
R448	1-216-833-11	METAL CHIP	10K	5%	1/10W
R449	1-216-833-11	METAL CHIP	10K	5%	1/10W
R450	1-216-833-11	METAL CHIP	10K	5%	1/10W
R451	1-216-833-11	METAL CHIP	10K	5%	1/10W
R452	1-216-833-11	METAL CHIP	10K	5%	1/10W
R453	1-216-833-11	METAL CHIP	10K	5%	1/10W
R454	1-216-833-11	METAL CHIP	10K	5%	1/10W
R455	1-216-833-11	METAL CHIP	10K	5%	1/10W
R456	1-216-833-11	METAL CHIP	10K	5%	1/10W
R457	1-216-833-11	METAL CHIP	10K	5%	1/10W
R459	1-216-813-11	METAL CHIP	220	5%	1/10W
R461	1-216-813-11	METAL CHIP	220	5%	1/10W
R462	1-216-813-11	METAL CHIP	220	5%	1/10W
R463	1-216-813-11	METAL CHIP	220	5%	1/10W
R464	1-216-813-11	METAL CHIP	220	5%	1/10W
R465	1-216-853-11	METAL CHIP	470K	5%	1/10W
R466	1-216-849-11	METAL CHIP	220K	5%	1/10W
R467	1-216-841-11	METAL CHIP	47K	5%	1/10W
R468	1-216-813-11	METAL CHIP	220	5%	1/10W
R470	1-216-813-11	METAL CHIP	220	5%	1/10W
R471	1-216-813-11	METAL CHIP	220	5%	1/10W
R472	1-216-817-11	METAL CHIP	470	5%	1/10W
R473	1-216-821-11	METAL CHIP	1K	5%	1/10W
R474	1-216-821-11	METAL CHIP	1K	5%	1/10W
R475	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R501	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R502	1-216-809-11	METAL CHIP	100	5%	1/10W
R503	1-216-809-11	METAL CHIP	100	5%	1/10W
R504	1-216-809-11	METAL CHIP	100	5%	1/10W
		< SWITCH >			
S419	1-786-726-11	SWITCH, TACTILE (DISP/ENT/MEMORY)			
S420	1-786-726-11	SWITCH, TACTILE (MODE)			

Ref. No.	Part No.	Description			Remark
S421	1-786-726-11	SWITCH, TACTILE (REPEAT)			
S422	1-786-726-11	SWITCH, TACTILE (MP3 🗀 –)			
S423	1-786-726-11	SWITCH, TACTILE (MP3 🗀 +)			
**********					
	A-1317-462-A	MAIN BOARD, COMPLETE (MX)			
	A-1319-418-A	MAIN BOARD, COMPLETE (CET,IT,SP)			
	A-1319-444-A	MAIN BOARD, COMPLETE (E41)			
	A-1319-450-A	MAIN BOARD, COMPLETE (RU)			
		**********			
	3-254-151-01	SCREW (B2.6), (+) P TAPPING			
		< CAPACITOR >			
C101	1-126-926-11	ELECT	1000uF	20%	10V
C102	1-104-658-11	ELECT	100uF	20%	10V
C103	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C104	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C106	1-126-947-11	ELECT	47uF	20%	35V
C107	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C108	1-126-959-11	ELECT	0.47uF	20%	50V
C109	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C110	1-126-163-11	ELECT	4.7uF	20%	50V
C201	1-126-926-11	ELECT	1000uF	20%	10V
C202	1-125-972-11	ELECT	100uF	20%	16V
C203	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C204	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C206	1-124-589-11	ELECT	47uF	20%	16V
C207	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C208	1-126-959-11	ELECT	0.47uF	20%	50V
C209	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C210	1-126-163-11	ELECT	4.7uF	20%	50V
C301	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C303	1-126-947-11	ELECT	47uF	20%	35V
C304	1-126-947-11	ELECT	47uF	20%	35V
C409	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C410	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C411	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C412	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C413	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C415	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C416	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C417	1-125-972-11	ELECT	100uF	20%	16V
C418	1-135-834-11	CERAMIC CHIP	2.2uF		6.3V
C801	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C802	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C803	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C804	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C806	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C807	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C808	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C809	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C810	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C811	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C812	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C813	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C814	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C815	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C816	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C817	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C818	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C819	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C821	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C822	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C823	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C824	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C825	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C826	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C827	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C828	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C829	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C830	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C831	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C832	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C833	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C834	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C835	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C836	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C837	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C838	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C839	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C840	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C841	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C842	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C843	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C844	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C845	1-162-913-11	CERAMIC CHIP	8PF	0.5PF	50V
C846	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C847	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C848	1-162-913-11	CERAMIC CHIP	8PF	0.5PF	50V
C849	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C850	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C852	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C854	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C855	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C856	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C857	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C858	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C859	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C860	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C861	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C862	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C863	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C864	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C866	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C868	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C869	1-126-925-11	ELECT	470uF	20%	10V
C870	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C872	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C873	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C874	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C875	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C876	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C879	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C884	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C885	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C886	1-135-834-11	CERAMIC CHIP	2.2uF		6.3V
C887	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V

CFD-RS60CP

MAIN

Ref. No.	Part No.	Description			Remark
C888	1-125-972-11	ELECT	100uF	20%	16V
C889	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C890	1-125-972-11	ELECT	100uF	20%	16V
C891	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C892	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C893	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C894	1-125-972-11	ELECT	100uF	20%	16V
C895	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C896	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C897	1-126-935-11	ELECT	470uF	20%	16V
C898	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C899	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C901	1-126-937-11	ELECT	4700uF	20%	16V
C902	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C903	1-104-666-11	ELECT	220uF	20%	25V
C904	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C905	1-126-935-11	ELECT	470uF	20%	16V
C906	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C907	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C908	1-126-935-11	ELECT	470uF	20%	16V
C909	1-126-964-11	ELECT	10uF	20%	50V
C910	1-125-972-11	ELECT	100uF	20%	16V
C911	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V
C912	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C913	1-126-941-11	ELECT	470uF	20%	25V
C914	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C915	1-126-947-11	ELECT	47uF	20%	35V
C916	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C917	1-126-947-11	ELECT	47uF	20%	35V
		< CONNECTOR >			
CN404	1-815-443-11	PIN, CONNECTOR (PWB) 2P			
CN408	1-784-776-11	CONNECTOR, FFC 15P			
CN801	1-779-295-11	CONNECTOR, FFC (LIF(NON-ZIF)) 27P			
CN802	1-779-289-11	CONNECTOR, FFC (LIF(NON-ZIF)) 21P			
CN804	1-568-830-11	CONNECTOR, FFC 11P			
CN805	1-784-774-11	CONNECTOR, FFC 13P			
CN806	1-815-445-11	PIN, CONNECTOR (PWB) 4P			
CN901	1-815-447-11	PIN, CONNECTOR (PWB) 6P			
		< DIODE >			
D404	8-719-404-50	DIODE MA111-TX			
D801	8-719-404-50	DIODE MA111-TX			
D802	6-500-335-01	DIODE MC2838-T112-1			
D901	6-500-334-01	DIODE MC2836-T112-1			
D902	8-719-404-50	DIODE MA111-TX			
D903	8-719-978-33	DIODE DTZ-TT11-6.8B			
D904	6-500-335-01	DIODE MC2838-T112-1			
D905	8-719-069-54	DIODE UDZSNPTE-175.1B			
D906	8-719-085-36	DIODE 11EQS04-TB5			
D907	8-719-083-58	DIODE UDZSNPTE-173.9B			
		< FERRITE BEAD >			
FB801	1-216-864-11	SHORT CHIP	0		
FB802	1-216-864-11	SHORT CHIP	0		
FB803	1-216-864-11	SHORT CHIP	0		
FB804	1-414-445-11	FERRITE, EMI (SMD) (1608)			
FB805	1-414-445-11	FERRITE, EMI (SMD) (1608)			

Ref. No.	Part No.	Description	Remark
FB806	1-414-445-11	FERRITE, EMI (SMD) (1608)	
FB807	1-414-445-11	FERRITE, EMI (SMD) (1608)	
FB808	1-414-445-11	FERRITE, EMI (SMD) (1608)	
FB809	1-216-864-11	SHORT CHIP 0	
FB810	1-414-760-21	FERRITE, EMI (SMD) (1608)	
FB811	1-414-760-21	FERRITE, EMI (SMD) (1608)	
FB812	1-414-760-21	FERRITE, EMI (SMD) (1608)	
FB813	1-414-445-11	FERRITE, EMI (SMD) (1608)	
FB814	1-414-445-11	FERRITE, EMI (SMD) (1608)	
FB815	1-414-760-21	FERRITE, EMI (SMD) (1608)	
		< IC >	
IC301	8-759-426-51	IC BA5417	
IC801	6-807-680-01	IC MB90F045PF-G-9064-SPE1	
IC802	6-703-740-01	IC S-24CS02AFT-TB-G	
IC803	8-759-523-03	IC TC74HC4066AFT(EL)	
IC804	6-707-870-01	IC TC74VHC157FT(EKJ)	
IC805	8-759-523-03	IC TC74HC4066AFT(EL)	
IC806	6-706-338-01	IC XC6202P332FR	
IC807	6-704-118-01	IC S-80828CNMC-B8NT2G	
IC901	6-702-472-01	IC PQ1CZ21H2ZPH	
		< JUMPER RESISTOR >	
JC802	1-216-864-11	SHORT CHIP 0	
JC804	1-216-864-11	SHORT CHIP 0	
JC805	1-216-864-11	SHORT CHIP 0	
JC808	1-216-864-11	SHORT CHIP 0	
		< COIL >	
L801	1-410-509-11	INDUCTOR 10uH	
L802	1-410-509-11	INDUCTOR 10uH	
L806	1-410-509-11	INDUCTOR 10uH	
L901	1-481-245-11	INDUCTOR 220uH	
		< TRANSISTOR >	
Q101	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF	
Q201	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF	
Q401	6-551-696-01	TRANSISTOR ISA1235AC1TP-1EF	
Q403	8-729-027-26	TRANSISTOR DTA114YKA-T146	
Q404	8-729-027-46	TRANSISTOR DTC114YKA-T146	
Q801	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF	
Q802	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF	
Q803	8-729-027-46	TRANSISTOR DTC114YKA-T146	
Q804	6-551-067-01	FET RTF015P02TL	
Q805	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF	
Q806	8-729-027-26	TRANSISTOR DTA114YKA-T146	
Q807	8-729-027-46	TRANSISTOR DTC114YKA-T146	
Q808	8-729-027-26	TRANSISTOR DTA114YKA-T146	
Q809	8-729-027-46	TRANSISTOR DTC114YKA-T146	
Q810	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF	
Q811	8-729-027-46	TRANSISTOR DTC114YKA-T146	
Q812	8-729-037-13	TRANSISTOR KTA1271Y	
Q813	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF	
Q814	6-551-696-01	TRANSISTOR ISA1235AC1TP-1EF	
Q901	8-729-040-76	TRANSISTOR KTA1273-Y-AT	
Q902	6-551-276-01	TRANSISTOR RT1N431C-TP-1	
Q903	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF	
Q904	8-729-018-99	TRANSISTOR 2SD2394-F	
Q905	8-729-018-99	TRANSISTOR 2SD2394-F	

Ref. No.	Part No.	Description			Remark
		< RESISTOR >			
R101	1-216-789-11	METAL CHIP	2.2	5%	1/10W
R102	1-216-813-11	METAL CHIP	220	5%	1/10W
R103	1-216-817-11	METAL CHIP	470	5%	1/10W
R105	1-216-833-11	METAL CHIP	10K	5%	1/10W
R106	1-216-833-11	METAL CHIP	10K	5%	1/10W
R107	1-216-821-11	METAL CHIP	1K	5%	1/10W
R108	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R109	1-216-833-11	METAL CHIP	10K	5%	1/10W
R110	1-216-821-11	METAL CHIP	1K	5%	1/10W
R112	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R201	1-216-789-11	METAL CHIP	2.2	5%	1/10W
R202	1-216-813-11	METAL CHIP	220	5%	1/10W
R203	1-216-817-11	METAL CHIP	470	5%	1/10W
R205	1-216-833-11	METAL CHIP	10K	5%	1/10W
R206	1-216-833-11	METAL CHIP	10K	5%	1/10W
R207	1-216-821-11	METAL CHIP	1K	5%	1/10W
R208	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R209	1-216-833-11	METAL CHIP	10K	5%	1/10W
R210	1-216-821-11	METAL CHIP	1K	5%	1/10W
R212	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R301	1-216-821-11	METAL CHIP	1K	5%	1/10W
R302	1-216-853-11	METAL CHIP	470K	5%	1/10W
R303	1-216-821-11	METAL CHIP	1K	5%	1/10W
R476	1-216-821-11	METAL CHIP	1K	5%	1/10W
R477	1-216-821-11	METAL CHIP	1K	5%	1/10W
R478	1-216-821-11	METAL CHIP	1K	5%	1/10W
R479	1-216-821-11	METAL CHIP	1K	5%	1/10W
R480	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R481	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R482	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R483	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R484	1-216-841-11	METAL CHIP	47K	5%	1/10W
R485	1-216-853-11	METAL CHIP	470K	5%	1/10W
R486	1-216-864-11	SHORT CHIP	0		
R487	1-216-821-11	METAL CHIP	1K	5%	1/10W
R488	1-216-817-11	METAL CHIP	470	5%	1/10W
R489	1-216-817-11	METAL CHIP	470	5%	1/10W
R490	1-216-817-11	METAL CHIP	470	5%	1/10W
R491	1-216-809-11	METAL CHIP	100	5%	1/10W
R492	1-216-809-11	METAL CHIP	100	5%	1/10W
R493	1-216-817-11	METAL CHIP	470	5%	1/10W
R494	1-216-845-11	METAL CHIP	100K	5%	1/10W
R495	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R496	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R497	1-216-853-11	METAL CHIP	470K	5%	1/10W
R498	1-216-841-11	METAL CHIP	47K	5%	1/10W
R499	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R801	1-216-833-11	METAL CHIP	10K	5%	1/10W (CET,IT,RU,SP)
R802	1-216-864-11	SHORT CHIP	0 (E41,MX)		
R803	1-216-833-11	METAL CHIP	10K	5%	1/10W (E41,MX)
R804	1-216-864-11	SHORT CHIP	0 (CET,IT,RU,SP)		
R805	1-216-833-11	METAL CHIP	10K	5%	1/10W (CET,E41,IT,SP)
R806	1-216-864-11	SHORT CHIP	0 (MX,RU)		
R809	1-216-821-11	METAL CHIP	1K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R810	1-216-821-11	METAL CHIP	1K	5%	1/10W
R811	1-216-809-11	METAL CHIP	100	5%	1/10W
R812	1-216-809-11	METAL CHIP	100	5%	1/10W
R813	1-216-809-11	METAL CHIP	100	5%	1/10W
R814	1-216-809-11	METAL CHIP	100	5%	1/10W
R815	1-216-809-11	METAL CHIP	100	5%	1/10W
R816	1-216-821-11	METAL CHIP	1K	5%	1/10W
R817	1-216-821-11	METAL CHIP	1K	5%	1/10W
R818	1-216-821-11	METAL CHIP	1K	5%	1/10W
R819	1-216-821-11	METAL CHIP	1K	5%	1/10W
R820	1-216-821-11	METAL CHIP	1K	5%	1/10W
R821	1-216-821-11	METAL CHIP	1K	5%	1/10W
R822	1-216-809-11	METAL CHIP	100	5%	1/10W
R823	1-216-809-11	METAL CHIP	100	5%	1/10W
R824	1-216-817-11	METAL CHIP	470	5%	1/10W
R825	1-216-817-11	METAL CHIP	470	5%	1/10W
R826	1-216-817-11	METAL CHIP	470	5%	1/10W
R827	1-216-809-11	METAL CHIP	100	5%	1/10W
R828	1-216-809-11	METAL CHIP	100	5%	1/10W
R830	1-216-821-11	METAL CHIP	1K	5%	1/10W
R831	1-216-821-11	METAL CHIP	1K	5%	1/10W
R832	1-216-821-11	METAL CHIP	1K	5%	1/10W
R833	1-216-821-11	METAL CHIP	1K	5%	1/10W
R834	1-216-837-11	METAL CHIP	22K	5%	1/10W
R835	1-216-821-11	METAL CHIP	1K	5%	1/10W
R836	1-216-837-11	METAL CHIP	22K	5%	1/10W
R837	1-216-864-11	SHORT CHIP	0		
R838	1-216-833-11	METAL CHIP	10K	5%	1/10W
R839	1-216-833-11	METAL CHIP	10K	5%	1/10W
R840	1-216-864-11	SHORT CHIP	0		
R841	1-216-833-11	METAL CHIP	10K	5%	1/10W
R842	1-216-837-11	METAL CHIP	22K	5%	1/10W
R843	1-216-864-11	SHORT CHIP	0		
R844	1-216-833-11	METAL CHIP	10K	5%	1/10W
R845	1-216-841-11	METAL CHIP	47K	5%	1/10W
R846	1-216-821-11	METAL CHIP	1K	5%	1/10W
R847	1-216-833-11	METAL CHIP	10K	5%	1/10W
R848	1-216-821-11	METAL CHIP	1K	5%	1/10W
R849	1-216-841-11	METAL CHIP	47K	5%	1/10W
R850	1-216-841-11	METAL CHIP	47K	5%	1/10W
R851	1-216-841-11	METAL CHIP	47K	5%	1/10W
R852	1-216-821-11	METAL CHIP	1K	5%	1/10W
R853	1-216-845-11	METAL CHIP	100K	5%	1/10W
R854	1-216-821-11	METAL CHIP	1K	5%	1/10W
R855	1-216-809-11	METAL CHIP	100	5%	1/10W
R856	1-216-821-11	METAL CHIP	1K	5%	1/10W
R857	1-216-821-11	METAL CHIP	1K	5%	1/10W
R858	1-216-821-11	METAL CHIP	1K	5%	1/10W
R859	1-216-821-11	METAL CHIP	1K	5%	1/10W
R860	1-216-809-11	METAL CHIP	100	5%	1/10W
R861	1-216-821-11	METAL CHIP	1K	5%	1/10W
R862	1-216-821-11	METAL CHIP	1K	5%	1/10W
R863	1-216-833-11	METAL CHIP	10K	5%	1/10W
R864	1-216-833-11	METAL CHIP	10K	5%	1/10W
R865	1-216-821-11	METAL CHIP	1K	5%	1/10W
R866	1-216-821-11	METAL CHIP	1K	5%	1/10W
R867	1-216-821-11	METAL CHIP	1K	5%	1/10W
R868	1-216-845-11	METAL CHIP	100K	5%	1/10W

MAIN **POWER** **POWER KEY** **TC**

Ref. No.	Part No.	Description			Remark
R869	1-216-821-11	METAL CHIP	1K	5%	1/10W
R870	1-216-821-11	METAL CHIP	1K	5%	1/10W
R871	1-216-821-11	METAL CHIP	1K	5%	1/10W
R872	1-216-821-11	METAL CHIP	1K	5%	1/10W
R874	1-216-817-11	METAL CHIP	470	5%	1/10W
R875	1-216-833-11	METAL CHIP	10K	5%	1/10W
R877	1-216-821-11	METAL CHIP	1K	5%	1/10W
R878	1-216-821-11	METAL CHIP	1K	5%	1/10W
R879	1-216-821-11	METAL CHIP	1K	5%	1/10W
R880	1-216-809-11	METAL CHIP	100	5%	1/10W
R881	1-216-809-11	METAL CHIP	100	5%	1/10W
R882	1-216-809-11	METAL CHIP	100	5%	1/10W
R883	1-216-809-11	METAL CHIP	100	5%	1/10W
R884	1-216-809-11	METAL CHIP	100	5%	1/10W
R885	1-216-833-11	METAL CHIP	10K	5%	1/10W
R886	1-216-845-11	METAL CHIP	100K	5%	1/10W
R887	1-216-853-11	METAL CHIP	470K	5%	1/10W
R888	1-216-837-11	METAL CHIP	22K	5%	1/10W
R889	1-216-837-11	METAL CHIP	22K	5%	1/10W
R890	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R891	1-216-857-11	METAL CHIP	1M	5%	1/10W
R892	1-216-864-11	SHORT CHIP	0		
R893	1-216-845-11	METAL CHIP	100K	5%	1/10W
R894	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R895	1-216-833-11	METAL CHIP	10K	5%	1/10W
R896	1-216-845-11	METAL CHIP	100K	5%	1/10W
R897	1-216-821-11	METAL CHIP	1K	5%	1/10W
R898	1-216-845-11	METAL CHIP	100K	5%	1/10W
R899	1-216-837-11	METAL CHIP	22K	5%	1/10W
R901	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R902	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R903	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R904	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R905	1-216-841-11	METAL CHIP	47K	5%	1/10W
R906	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R907	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R908	1-216-833-11	METAL CHIP	10K	5%	1/10W
R909	1-216-833-11	METAL CHIP	10K	5%	1/10W
R910	1-216-821-11	METAL CHIP	1K	5%	1/10W
R911	1-216-821-11	METAL CHIP	1K	5%	1/10W
R912	1-216-821-11	METAL CHIP	1K	5%	1/10W
R913	1-216-821-11	METAL CHIP	1K	5%	1/10W
R914	1-216-821-11	METAL CHIP	1K	5%	1/10W
R915	1-216-809-11	METAL CHIP	100	5%	1/10W
R916	1-216-817-11	METAL CHIP	470	5%	1/10W
R917	1-216-817-11	METAL CHIP	470	5%	1/10W
R918	1-216-817-11	METAL CHIP	470	5%	1/10W
R919	1-218-863-11	METAL CHIP	4.7K	0.5%	1/10W
R920	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R921	1-218-895-11	METAL CHIP	100K	0.5%	1/10W
R922	1-218-847-11	METAL CHIP	1K	0.5%	1/10W
R923	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R924	1-216-809-11	METAL CHIP	100	5%	1/10W
R925	1-216-809-11	METAL CHIP	100	5%	1/10W
R926	1-216-833-11	METAL CHIP	10K	5%	1/10W
R927	1-216-809-11	METAL CHIP	100	5%	1/10W

Ref. No.	Part No.	Description			Remark
		< VIBRATOR >			
X801	1-813-940-21	PIEZOELECTRIC OSCILLATOR (5.53MHz)			
**********					
	A-1317-459-A	POWER BOARD, COMPLETE			
		**********			
	1-533-233-31	HOLDER, FUSE			
		< CAPACITOR >			
C951	1-126-947-11	ELECT	47uF	20%	35V
C952	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C953	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C954	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C955	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C956	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C957	1-126-768-11	ELECT	2200uF	20%	16V
		< CONNECTOR >			
CN952	1-815-446-11	PIN, CONNECTOR (PWB) 5P			
		< DIODE >			
D951	6-501-569-01	DIODE 1N5401-C352			
D952	6-501-569-01	DIODE 1N5401-C352			
D953	6-501-569-01	DIODE 1N5401-C352			
D954	6-501-569-01	DIODE 1N5401-C352			
**********					
	A-1317-468-A	POWER KEY BOARD, COMPLETE			
		**********			
		< RESISTOR >			
R418	1-216-821-11	METAL CHIP	1K	5%	1/10W
R419	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R420	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R421	1-216-821-11	METAL CHIP	1K	5%	1/10W
R422	1-216-821-11	METAL CHIP	1K	5%	1/10W
R423	1-216-817-11	METAL CHIP	470	5%	1/10W
R424	1-216-813-11	METAL CHIP	220	5%	1/10W
		< SWITCH >			
S413	1-786-726-11	SWITCH, TACTILE (USB)			
S414	1-786-726-11	SWITCH, TACTILE (TAPE)			
S415	1-786-726-11	SWITCH, TACTILE (RADIO/AUTO PRESET)			
S416	1-786-726-11	SWITCH, TACTILE (CD)			
S417	1-786-726-11	SWITCH, TACTILE (SLEEP)			
S418	1-786-726-11	SWITCH, TACTILE (OPERATE)			
**********					
	A-1108-791-A	TC BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C101	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C102	1-104-658-11	ELECT	100uF	20%	10V
C103	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C104	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C105	1-162-923-11	CERAMIC CHIP	47PF	5%	50V

Ref. No.	Part No.	Description			Remark
C107	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C201	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C202	1-104-658-11	ELECT	100uF	20%	10V
C203	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C204	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C205	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C207	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C301	1-104-658-11	ELECT	100uF	20%	10V
C302	1-104-658-11	ELECT	100uF	20%	10V
C303	1-104-658-11	ELECT	100uF	20%	10V
C304	1-126-947-11	ELECT	47uF	20%	35V
C305	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C306	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C307	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C308	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C310	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
		< CONNECTOR >			
CN303	1-784-774-11	CONNECTOR, FFC 13P			
		< IC >			
IC301	6-710-092-01	IC TA2068NG(5,HZ)			
		< JUMPER RESISTOR >			
JC301	1-216-864-11	SHORT CHIP	0		
JC302	1-216-864-11	SHORT CHIP	0		
JC303	1-216-864-11	SHORT CHIP	0		
JC304	1-216-864-11	SHORT CHIP	0		
JC305	1-216-864-11	SHORT CHIP	0		
JC306	1-216-295-11	SHORT CHIP	0		
JC307	1-216-864-11	SHORT CHIP	0		
JC308	1-216-295-11	SHORT CHIP	0		
JC309	1-216-864-11	SHORT CHIP	0		
		< TRANSISTOR >			
Q301	8-729-901-81	TRANSISTOR	2SC2412K-T-146-R		
Q302	8-729-907-00	TRANSISTOR	DTC114EU		
Q303	8-729-907-00	TRANSISTOR	DTC114EU		
		< RESISTOR >			
R101	1-216-835-11	METAL CHIP	15K	5%	1/10W
R102	1-216-807-11	METAL CHIP	68	5%	1/10W
R103	1-216-843-11	METAL CHIP	68K	5%	1/10W
R104	1-216-835-11	METAL CHIP	15K	5%	1/10W
R105	1-216-835-11	METAL CHIP	15K	5%	1/10W
R106	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R110	1-216-809-11	METAL CHIP	100	5%	1/10W
R111	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R112	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R201	1-216-835-11	METAL CHIP	15K	5%	1/10W
R202	1-216-807-11	METAL CHIP	68	5%	1/10W
R203	1-216-843-11	METAL CHIP	68K	5%	1/10W
R204	1-216-835-11	METAL CHIP	15K	5%	1/10W
R205	1-216-835-11	METAL CHIP	15K	5%	1/10W
R206	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R210	1-216-025-11	RES-CHIP	100	5%	1/10W
R211	1-216-829-11	METAL CHIP	4.7K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R212	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R301	1-216-857-11	METAL CHIP	1M	5%	1/10W
R302	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R303	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R304	1-216-821-11	METAL CHIP	1K	5%	1/10W
R305	1-216-817-11	METAL CHIP	470	5%	1/10W
R306	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W
R307	1-216-797-11	METAL CHIP	10	5%	1/10W
R308	1-216-837-11	METAL CHIP	22K	5%	1/10W
R309	1-216-805-11	METAL CHIP	47	5%	1/10W
R310	1-216-857-11	METAL CHIP	1M	5%	1/10W
R311	1-216-857-11	METAL CHIP	1M	5%	1/10W
R314	1-216-817-11	METAL CHIP	470	5%	1/10W
R315	1-216-817-11	METAL CHIP	470	5%	1/10W
		< SWITCH >			
S301	1-786-126-11	SWITCH, SLIDE (REC/PB)			
		< TRANSFORMER >			
T301	1-416-041-11	TRANSFORMER, BIAS OSCILLATION			
**********					
	A-1098-549-A	TUNER BOARD, COMPLETE (MX)			
	A-1098-611-A	TUNER BOARD, COMPLETE (EXCEPT MX)			
		**********			
	2-547-169-01	TERMINAL, ANTENNA			
		< CAPACITOR >			
C1	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C4	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C7	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V
C8	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C9	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C10	1-126-960-11	ELECT	1uF	20%	50V
C11	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C12	1-126-963-11	ELECT	4.7uF	20%	50V
C13	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V (MX)
C14	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V (EXCEPT MX)
C14	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V (MX)
C15	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V (EXCEPT MX)
C15	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V (MX)
C18	1-126-923-11	ELECT	220uF	20%	10V
C20	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C21	1-126-960-11	ELECT	1uF	20%	50V
C22	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C23	1-126-960-11	ELECT	1uF	20%	50V
C24	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C26	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C27	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C29	1-104-658-11	ELECT	100uF	20%	10V
C30	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C31	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C32	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V

Ref. No.	Part No.	Description			Remark
C33	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C34	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C35	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C37	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C39	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C41	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C42	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C43	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C47	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C49	1-161-051-00	CERAMIC	0.01uF	10%	25V
C51	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C52	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C53	1-137-190-11	FILM	0.22uF	5%	50V
C54	1-126-923-11	ELECT	220uF	20%	10V
C55	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C56	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C57	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C59	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C60	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C61	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C62	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C63	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C65	1-126-963-11	ELECT	4.7uF	20%	50V
C66	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C68	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C77	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V (EXCEPT MX)
C78	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V (EXCEPT MX)
C80	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C95	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
		< FILTER >			
CF2	1-760-235-81	FILTER, CERAMIC			
CF4	1-781-962-21	FILTER, CERAMIC			
		< CONNECTOR >			
CNP1	1-568-854-11	CONNECTOR, FFC 11P			
		< TRIMMER >			
CT1	1-141-442-91	CAP, CERAMIC TRIMMER 20PF			
CT3	1-141-304-21	CAP, CERAMIC TRIMMER 10PF			
		< DIODE >			
D1	8-719-078-48	DIODE KV1471ETR-G			
D2	8-719-078-48	DIODE KV1471ETR-G			
D3	8-719-050-69	DIODE KV1520N			
D10	8-719-988-61	DIODE 1SS355TE-17			
D11	8-719-988-61	DIODE 1SS355TE-17			
		< IC >			
IC1	6-700-512-01	IC TA2149BN			
IC2	8-759-483-40	IC LC72137M-TLM-E			
		< JUMPER RESISTOR >			
JC1	1-216-864-11	SHORT CHIP	0		
JC2	1-216-864-11	SHORT CHIP	0		
JC3	1-216-864-11	SHORT CHIP	0		

Ref. No.	Part No.	Description			Remark
JC4	1-216-864-11	SHORT CHIP	0		
JC5	1-216-864-11	SHORT CHIP	0		
JC6	1-216-864-11	SHORT CHIP	0		
JC11	1-216-864-11	SHORT CHIP	0		
JC12	1-216-864-11	SHORT CHIP	0		
JC13	1-216-864-11	SHORT CHIP	0		
JC24	1-216-864-11	SHORT CHIP	0 (EXCEPT MX)		
JC33	1-216-864-11	SHORT CHIP	0		
JC34	1-216-864-11	SHORT CHIP	0		
		< COIL >			
L1	1-409-775-11	COIL, AIR-CORE			
L2	1-416-509-11	COIL, AIR-CORE			
L3	1-754-117-12	ANTENNA, FERRITE-ROD (AM)			
L4	1-411-234-21	COIL, AM OSC			
L11	1-414-142-11	INDUCTOR	1uH (MX)		
L21	1-410-509-11	INDUCTOR	10uH		
		< RESISTOR >			
R1	1-216-817-11	METAL CHIP	470	5%	1/10W
R2	1-216-817-11	METAL CHIP	470	5%	1/10W
R3	1-216-833-11	METAL CHIP	10K	5%	1/10W
R4	1-216-833-11	METAL CHIP	10K	5%	1/10W
R5	1-216-821-11	METAL CHIP	1K	5%	1/10W
R10	1-216-805-11	METAL CHIP	47	5%	1/10W
R11	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R13	1-216-821-11	METAL CHIP	1K	5%	1/10W
R14	1-216-821-11	METAL CHIP	1K	5%	1/10W
R24	1-216-813-11	METAL CHIP	220	5%	1/10W
R30	1-216-837-11	METAL CHIP	22K	5%	1/10W
R31	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R32	1-216-845-11	METAL CHIP	100K	5%	1/10W
R33	1-216-833-11	METAL CHIP	10K	5%	1/10W
R40	1-216-849-11	METAL CHIP	220K	5%	1/10W
R41	1-216-833-11	METAL CHIP	10K	5%	1/10W
R50	1-216-821-11	METAL CHIP	1K	5%	1/10W
R51	1-216-833-11	METAL CHIP	10K	5%	1/10W
R52	1-216-864-11	SHORT CHIP	0		
R53	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R54	1-216-817-11	METAL CHIP	470	5%	1/10W
R55	1-216-833-11	METAL CHIP	10K	5%	1/10W
R56	1-216-813-11	METAL CHIP	220	5%	1/10W
R57	1-216-809-11	METAL CHIP	100	5%	1/10W
R58	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R59	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R60	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R61	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R63	1-216-833-11	METAL CHIP	10K	5%	1/10W
R65	1-216-833-11	METAL CHIP	10K	5%	1/10W
R91	1-216-813-11	METAL CHIP	220	5%	1/10W
R92	1-216-813-11	METAL CHIP	220	5%	1/10W
R94	1-216-821-11	METAL CHIP	1K	5%	1/10W
		< TRANSFORMER >			
T1	1-433-741-11	TRANSFORMER, IF			
T2	1-419-465-11	COIL (DET)			

Ref. No.	Part No.	Description			Remark
		< VIBRATOR >			
X1	1-795-449-11	VIBRATOR, CRYSTAL (75kHz)			
**********					
	A-1317-463-A	USB BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C901	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C902	1-124-779-00	ELECT CHIP	10uF	20%	16V
C903	1-124-779-00	ELECT CHIP	10uF	20%	16V
C904	1-124-779-00	ELECT CHIP	10uF	20%	16V
C905	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C906	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C907	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C908	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C909	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C910	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C912	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C913	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C914	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C915	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C916	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C917	1-100-354-21	ELECT CHIP	220uF	20%	6.3V
C918	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C919	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C920	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C921	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C922	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C930	1-216-864-11	SHORT CHIP	0		
		< CONNECTOR >			
CN901	1-770-160-21	PIN, CONNECTOR (PC BOARD) 2P			
CN903	1-779-993-11	PIN, CONNECTOR (PWB) 5P			
CN904	1-784-859-51	CONNECTOR, FFC (LIF(NON-ZIF)) 7P			
CN907	1-784-833-51	CONNECTOR, FFC (LIF(NON-ZIF)) 21P			
		< DIODE >			
D903	8-719-978-33	DIODE DTZ-TT11-6.8B			
D904	8-719-978-33	DIODE DTZ-TT11-6.8B			
D905	6-501-579-01	DIODE MC2837			
		< JUMPER RESISTOR >			
FB901	1-216-295-11	SHORT CHIP	0		
FB902	1-216-295-11	SHORT CHIP	0		
		< IC >			
IC901	6-807-284-01	IC TMP92CD28AFG-2CB4			
IC915	6-710-887-01	IC R5523N001B-TR-F			
IC921	6-704-832-01	IC IS61LV6416-10TLT			
		< JUMPER RESISTOR >			
JR902	1-216-295-11	SHORT CHIP	0		
		< RESISTOR >			
R901	1-216-833-11	METAL CHIP	10K	5%	1/10W
R902	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R903	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R904	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R905	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R906	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R907	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R913	1-216-845-11	METAL CHIP	100K	5%	1/10W
R915	1-216-833-11	METAL CHIP	10K	5%	1/10W
R916	1-216-864-11	SHORT CHIP	0		
R917	1-216-864-11	SHORT CHIP	0		
R919	1-216-809-11	METAL CHIP	100	5%	1/10W
R920	1-216-833-11	METAL CHIP	10K	5%	1/10W
R921	1-216-845-11	METAL CHIP	100K	5%	1/10W
R922	1-216-845-11	METAL CHIP	100K	5%	1/10W
R923	1-216-802-11	METAL CHIP	27	5%	1/10W
R924	1-216-802-11	METAL CHIP	27	5%	1/10W
R925	1-216-835-11	METAL CHIP	15K	5%	1/10W
R926	1-216-835-11	METAL CHIP	15K	5%	1/10W
R928	1-216-864-11	SHORT CHIP	0		
R932	1-216-809-11	METAL CHIP	100	5%	1/10W
R933	1-216-864-11	SHORT CHIP	0		
R934	1-216-833-11	METAL CHIP	10K	5%	1/10W
R937	1-216-809-11	METAL CHIP	100	5%	1/10W
R938	1-216-809-11	METAL CHIP	100	5%	1/10W
R941	1-216-845-11	METAL CHIP	100K	5%	1/10W
R942	1-216-845-11	METAL CHIP	100K	5%	1/10W
R943	1-216-845-11	METAL CHIP	100K	5%	1/10W
R944	1-216-845-11	METAL CHIP	100K	5%	1/10W
R945	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R947	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R950	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R970	1-216-809-11	METAL CHIP	100	5%	1/10W
R971	1-216-809-11	METAL CHIP	100	5%	1/10W
R972	1-216-809-11	METAL CHIP	100	5%	1/10W
R973	1-216-809-11	METAL CHIP	100	5%	1/10W
R974	1-216-809-11	METAL CHIP	100	5%	1/10W
R975	1-216-809-11	METAL CHIP	100	5%	1/10W
R976	1-216-809-11	METAL CHIP	100	5%	1/10W
R977	1-216-809-11	METAL CHIP	100	5%	1/10W
R978	1-216-809-11	METAL CHIP	100	5%	1/10W
R979	1-216-809-11	METAL CHIP	100	5%	1/10W
R981	1-216-809-11	METAL CHIP	100	5%	1/10W
R982	1-216-809-11	METAL CHIP	100	5%	1/10W
R983	1-216-809-11	METAL CHIP	100	5%	1/10W
R984	1-216-809-11	METAL CHIP	100	5%	1/10W
R985	1-216-809-11	METAL CHIP	100	5%	1/10W
R986	1-216-809-11	METAL CHIP	100	5%	1/10W
		< NETWORK RESISTOR >			
RB921	1-234-944-21	RES, NETWORK 47X4 (1005)			
RB922	1-234-944-21	RES, NETWORK 47X4 (1005)			
RB923	1-234-944-21	RES, NETWORK 47X4 (1005)			
RB924	1-234-944-21	RES, NETWORK 47X4 (1005)			
		< VIBRATOR >			
X901	1-813-931-21	VIBRATOR, CRYSTAL (9MHz)			
**********					

CFD-RS60CP

Ver. 1.1

USB CONNECT **VOL**

Ref. No.	Part No.	Description				Remark
	A-1317-475-A	USB CONNECT BOARD, COMPLETE				
		**********				
		< CAPACITOR >				
C1003	1-135-834-11	CERAMIC CHIP	2.2uF			6.3V
		< DIODE >				
D1003	8-719-978-33	DIODE DTZ-TT11-6.8B				
D1004	8-719-978-33	DIODE DTZ-TT11-6.8B				
		< FERRITE BEAD >				
FB1003	1-414-233-22	INDUCTOR, FERRITE BEAD				
FB1004	1-414-233-22	INDUCTOR, FERRITE BEAD				
		< COIL >				
L1001	1-456-799-11	COIL, COMMON MODE CHOKE				
		< CONNECTOR >				
J1001	1-794-548-21	CONNECTOR, USB (A) (•<)				
**********						
	A-1317-465-A	VOL BOARD, COMPLETE				
		**********				
		< CAPACITOR >				
C152	1-126-160-11	ELECT	1uF	20%	50V	
C153	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	
C154	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	
C155	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	
C156	1-126-163-11	ELECT	4.7uF	20%	50V	
C157	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V	
C158	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V	
C159	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V	
C160	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V	
C161	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V	
C162	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V	
C252	1-126-160-11	ELECT	1uF	20%	50V	
C253	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	
C254	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	
C255	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	
C256	1-126-163-11	ELECT	4.7uF	20%	50V	
C257	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V	
C258	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V	
C259	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V	
C260	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V	
C261	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V	
C262	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V	
C351	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	
C352	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	
C353	1-124-261-11	ELECT	10uF	20%	10V	
C354	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	
C355	1-125-972-11	ELECT	100uF	20%	16V	
		< CONNECTOR >				
CN351	1-815-558-11	PIN, CONNECTOR (PWB) 10P				

Ref. No.	Part No.	Description				Remark
		< IC >				
IC351	6-710-289-01	IC R2S15904SP				
		< JUMPER RESISTOR >				
JC351	1-216-864-11	SHORT CHIP	0			
		< COIL >				
L351	1-410-509-11	INDUCTOR	10uH			
		< RESISTOR >				
R151	1-216-821-11	METAL CHIP	1K	5%	1/10W	
R153	1-216-853-11	METAL CHIP	470K	5%	1/10W	
R154	1-216-841-11	METAL CHIP	47K	5%	1/10W	
R155	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R251	1-216-821-11	METAL CHIP	1K	5%	1/10W	
R253	1-216-853-11	METAL CHIP	470K	5%	1/10W	
R254	1-216-841-11	METAL CHIP	47K	5%	1/10W	
R255	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R351	1-216-809-11	METAL CHIP	100	5%	1/10W	
R352	1-216-809-11	METAL CHIP	100	5%	1/10W	
R353	1-216-809-11	METAL CHIP	100	5%	1/10W	
R354	1-216-809-11	METAL CHIP	100	5%	1/10W	
R355	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R356	1-216-833-11	METAL CHIP	10K	5%	1/10W	
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		MISCELLANEOUS				
		**********				
104	1-832-404-21	CABLE, FLEXIBLE FLAT (16 CORE)				
105	1-832-644-21	CABLE, FLEXIBLE FLAT (27 CORE)				
111	1-452-899-11	MAGNET				
⚠115	8-820-126-02	OPTICAL PICK-UP (KSM-213CDP/C2NP)				
165	1-500-868-11	CORE, FERRITE				
206	1-832-824-21	CABLE, FLEXIBLE FLAT (11 CORE)				
211	1-832-611-21	CABLE, FLEXIBLE FLAT (21 CORE)				
218	1-500-868-11	CORE, FERRITE				
253	1-832-833-21	CABLE, FLEXIBLE FLAT (13 CORE)				
ANT1	1-754-376-11	ANTENNA, TELESCOPIC (FM)				
C309	1-162-923-11	CERAMIC CHIP	47PF	5%	50V	
⚠F951	1-532-465-33	FUSE (3.15A/250V)				
HE301	1-500-813-11	HEAD, ERASE (ERASE)				
HRP301	3-266-053-01	HEAD, RP (REC/PB)				
⚠J951	1-526-838-11	INLET, AC 2P (~ AC IN) (EXCEPT MX)				
⚠J951	1-540-009-11	INLET, AC (~ AC IN) (MX)				
S201	1-771-853-11	SWITCH, DETECTION (LIMIT)				
S801	1-692-960-11	SWITCH, PUSH (1 KEY) (⏏ PUSH OPEN/CLOSE)				
SP301	1-825-690-11	SPEAKER (DIA. 10cm) (L-CH)				
SP302	1-825-690-11	SPEAKER (DIA. 10cm) (R-CH)				
⚠T951	1-445-291-11	TRANSFORMER, POWER (MX)				
⚠T951	1-445-292-11	TRANSFORMER, POWER (EXCEPT MX)				
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Ref. No.	Part No.	Description	Remark
		ACCESSORIES	
		**********	
⚠	1-769-412-22	CORD, POWER (EXCEPT MX)	
⚠	1-834-027-11	CORD, POWER (MX)	
	3-267-151-11	BATTERY, LID (for RMT-CRS60A/CRS60AD)	
	3-268-767-11	MANUAL, INSTRUCTION (ENGLISH) (E41,MX)	
	3-268-767-21	MANUAL, INSTRUCTION (SPANISH) (MX)	
	3-268-767-31	MANUAL, INSTRUCTION (SPANISH) (E41)	
	3-268-767-41	MANUAL, INSTRUCTION (ENGLISH) (SP)	
	3-268-767-51	MANUAL, INSTRUCTION (SPANISH) (SP)	
	3-268-767-61	MANUAL, INSTRUCTION (RUSSIAN) (RU)	
	3-268-767-71	MANUAL, INSTRUCTION (UKRAINIAN) (RU)	
	3-277-987-11	MANUAL, INSTRUCTION (ENGLISH) (IT)	
	3-277-987-21	MANUAL, INSTRUCTION (FRENCH,GERMAN) (IT)	
	3-277-987-31	MANUAL, INSTRUCTION (ITALIAN,SPANISH) (IT)	
	3-277-987-41	MANUAL, INSTRUCTION (DUTCH, PORTUGUESE) (IT)	
	3-277-987-51	MANUAL, INSTRUCTION (SWEDISH,FINNISH) (CET)	
	3-277-987-61	MANUAL, INSTRUCTION (POLISH,CZECH) (CET)	
	3-277-987-71	MANUAL, INSTRUCTION (HUNGARIAN, SLOVAKIAN) (CET)	
	A-1317-437-A	REMOTE COMMANDER (RMT-CRS60A) (E41,MX,SP)	
	A-1317-438-A	REMOTE COMMANDER (RMT-CRS60AD) (CET,IT,RU)	

REVISION HISTORY

Clicking the version allows you to jump to the revised page.
Also, clicking the version at the top of the revised page allows you to jump to the next revised page.

Ver.	Date	Description of Revision
1.0	2007.07	New
1.1	2007.08	Addition of East European, Italian and Russian models.